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FOOD COST REVIEW, 1985. By Denis Dunham, National Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 559.

ABSTRACT

Food prices, as measured by the Consumer Price Index, increased 2.3 percent in 1985, compared with a 3.8-percent rise in 1984. The smaller rise reflected large supplies of most commodities, particularly meats. The prices farmers received for commodities dropped sharply. The farm value of USDA's market basket of foods dropped 6.9 percent. This large decline brought the 1985 farm value of foods to nearly the same value as in 1980. In contrast, retail food prices rose 18 percent between 1980-85. The farm-value share of a dollar spent at foodstores fell to 31 percent from 34 percent in 1984. The farm-to-retail price spread of USDA's market basket of foods rose by 5.3 percent, the largest increase since 1982. Food industry marketing costs increased very little, mostly because of a small rise in wages and salaries of workers.

Keywords: Retail food prices, farm-to-retail price spread, farm value, food marketing costs, food spending, profit, productivity.

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SUMMARY

Large commodity supplies and moderate marketing cost inflation continued to temper increases in food prices last year. Although consumers paid 2.3 percent more for food in 1985, as measured by the Consumer Price Index (CPI), this increase was much less than the 3.8-percent rise in 1984, and about equal to the 1983 rise of 2.1 percent. Moreover, it was the second smallest year-to-year change in food prices since 1967. Food prices in 1985 rose much less at supermarkets and other grocery stores (1.4 percent) than at eating places (4.0 percent), continuing a trend of recent years.

The retail price rise was smaller in 1985 for several reasons.

- Farmers' prices for food commodities fell sharply because supplies of crops and livestock were abundant at the same time demand for exports was declining. Excellent growing conditions boosted crop production, and mild weather promoted rapid cattle fattening, raising the beef supply above expectations.

- Marketing input prices remained relatively flat which held down the costs for processing, distributing, and retailing foods.

- The rise in personal disposable income was much smaller last year, giving less boost to consumer demand for food.

With the exception of fresh fruit, prices of most foods at the supermarket either increased very little or declined. Here's a wrapup of price changes at the supermarket last year.

- Record-large meat supplies resulted in a 1-percent decline in red meat prices, the second price decline in the past 3 years. Beef supplies were bolstered by record-high slaughter weights of cattle. Those large supplies pushed down retail beef and veal prices 2.1 percent. Pork production and retail prices were virtually unchanged in 1985.

- Poultry prices averaged 1.0 percent lower last year, partly because of a 4.5-percent increase in broiler production. Strong consumer demand, resulting from poultry's low price relative to other meats and availability in more highly processed forms, prevented prices from dropping further.

- Egg prices dropped about 17 percent from a record-high level in 1984 though production remained unchanged.

- Retail prices of milk and other dairy products rose 1.9 percent in 1985, the largest rise in 4 years. The rise was attributed to higher marketing margins. Farm prices of milk declined.

- Retail prices of most processed and prepared foods rose, mainly because of higher marketing charges. Retail prices of fats and oils, such as vegetable shortening and margarine, averaged 2.2 percent higher. Cereals and baked goods cost 3.8 percent more than in 1984, largely because of increases in manufacturing and distributing charges, which account for most of their price. Other processed foods rose about 3 percent.

- Fresh fruit prices rose an average of 11.1 percent, the second consecutive sizable increase in fruit prices. Prices rose mainly because of smaller supplies, particularly of oranges, apples, peaches, and other summer fruits.

- Fresh vegetable prices averaged 4.3 percent lower in 1985 reflecting larger supplies than in 1984 when a freeze reduced winter vegetable production. A record potato crop dropped potato prices about 12 percent.

The farm value (what farmers receive) of USDA's "market basket" of foods fell by 6.9 percent in 1985. With last year's large decline and the depressed farm prices for several previous years, the 1985 farm value of foods was nearly the same as the 1980 value. In contrast, retail food prices rose 18 percent over the same time.

The farm value averaged 31 percent of the retail cost for a market basket of foods, down from 34 percent in 1984 and 37 percent in 1980. The farm share of the food dollar has declined in recent years because abundant food supplies have held down farm prices while rising processing and distributing charges have boosted retail prices.

The farm-to-retail price spread rose 5.3 percent in 1985, exceeding the overall 3.6-percent rate of inflation (as measured by the CPI for all items). The increase also exceeded price increases for inputs used in the food industry. The increase resulted from slow pass-through of lower farm prices to the marketing system and from greater use of labor, advertising, or other inputs per unit of output. The large employment increase in food retailing in 1985 reflected the trend toward more service departments such as instore bakeries and delicatessens.

During 1985, consumers spent $344 billion for foods produced on U.S. farms, about 3.5 percent more than in 1984. This amount includes purchases of farm foods in foodstores, roughly two-thirds of the total, and at away-from-home eating places. About 25 percent of last year's food spending went back to farmers, who received about $86 billion. This share is a weighted average of the 31-percent farm value share for food at home and the much lower 14-percent farm share for away-from-home food spending.

The remaining $257 billion--the marketing bill--went to the food industry for handling, processing, and retailing foodstuffs after they left the farm. The marketing bill was up by $16.5 billion in 1985. Of this, consumers paid about $11.5 billion in the form of higher expenditures and producers received $5 billion less for food commodities. Food marketing direct labor costs represented nearly half of the $257-billion marketing bill. Labor costs were about two-fifths larger than the farm value of food commodities.

Although the dollar amount spent for food has risen, food spending has declined as a percentage of personal income over the past decade. A declining proportion of income spent for food leaves more money for other expenditures and for savings, and is an often-used indicator of a rising standard of living. In 1985, personal consumption expenditures for food, as reported by the Department of Commerce, were 15.0 percent of total personal disposable income, down from 15.8 percent in 1980 and 16.5 percent 10 years ago.

Food Cost Review, 1985

INTRODUCTION

Consumers, farmers, and legislators want to know what causes food prices to change. They are also interested in the difference between what farmers get for the food they sell and how much consumers pay for that food, commonly referred to as the farm-to-retail price spread. To answer these concerns, Congress has directed the U.S. Department of Agriculture (USDA) to measure price spreads for foods originating on farms.

This report presents USDA's findings for 1985, including answers to the following questions:

How much did food prices rise in 1985? Why?

How much of the retail food price does the farm value represent?

How did farm-to-retail price spreads change last year, both for a market basket of foods and for representative foods such as Choice beef or bread?

How have recent developments affected food industry costs, profit margins, and productivity?

Finally, how much did Americans spend for farm-produced foods and how were these dollars divided among costs of producing and marketing food?

RETAIL FOOD PRICE DEVELOPMENTS

Food prices rose moderately in 1985 for the fourth consecutive year. Retail food prices averaged 2.3 percent higher in 1985 than in 1984 (fig. 1). That was much below the 1984 rise of 3.8 percent, but about equal to the 1983 rise of 2.1 percent. Moreover, it was the second smallest year-to-year change in food prices since 1967.

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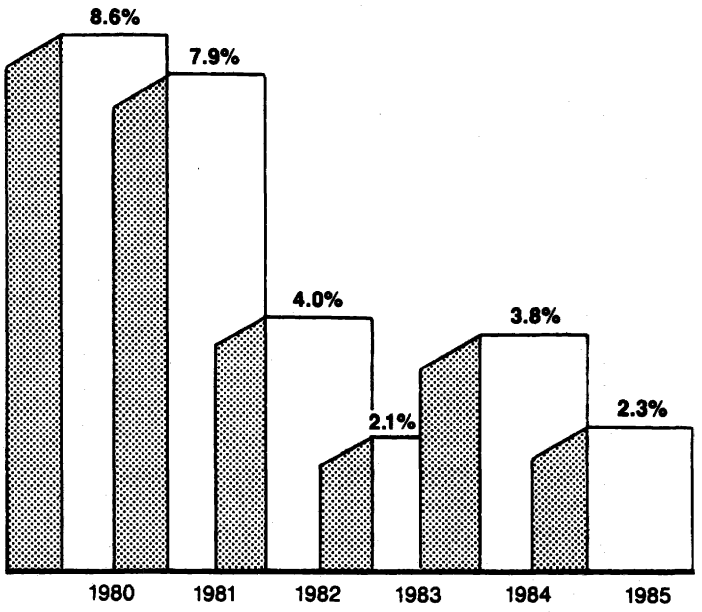
*This report was prepared by Denis Dunham of the National Economics Division, Economic Research Service (ERS), U.S. Department of Agriculture. Lawrence Duewer, Joan Pearrow, Luigi Angelo, and James Miller provided cost data for individual commodities, Howard Elitzak provided marketing bill data, and T. Q. Hutchinson provided transportation information. Appreciation is extended to Harry Harp for his helpful ideas and to Carol Jenkins for producing the report.

Figure 1

Food Prices Post Small Rise



CPI, annual averages.

These statistics came from the Consumer Price Index (CPI) for urban consumers, published by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). The CPI is the most widely accepted measure of changes in retail food prices.

The 2.3-percent retail price rise for 1985 included both prices at foodstores and those paid at restaurants and other eating places. Prices of food at eating places rose by more than those at foodstores: 4.0 percent compared with 1.4 percent. Restaurant meal prices increased about the same amount as the year before, whereas food prices in grocery stores rose much less. In 1984, prices in grocery stores rose 3.7 percent (table 1).

Abundant supplies of farm products, which caused prices received by farmers to drop, put downward pressure on 1985 retail food prices. Meat supplies increased because of larger beef and poultry production. Crop output was up sharply because of expanded acreage and increased yields. Meanwhile, charges for food processing, distributing, and retailing rose more rapidly, as measured by the farm-to-retail price spread.

Why Foodstore Prices Increased

To better understand why grocery store food prices increased last year, we consider separately what happened to the prices of foods that American farmers produce and what happened to prices of nonfarm foods such as nonalcoholic beverages, fishery products, and imported foods. The first category accounts for over 80 percent of consumer food purchases from foodstores. The second accounts for the rest.

The 1.4-percent rise in foodstore prices was the combined result of a 1.2-percent increase in prices of domestically produced foods and a larger rise of 2.6 percent in prices of nonfarm foods.

Table 1--Annual changes in consumer price indexes for food and all items

Year	All food	Food at home			Food away from home	CPI-U all items
		Total	Domestically produced farm food	Nonfarm food 1/		
		Percentage change				
1960	1.0	0.9	0.5	--	2.6	1.6
1961	1.3	.9	.3	--	2.2	1.0
1962	.9	.7	1.0	--	2.6	1.1
1963	1.4	1.3	-.2	--	2.2	1.2
1964	1.3	1.1	.2	--	1.8	1.3
1965	2.2	2.5	2.8	--	2.2	1.7
1966	5.0	5.0	5.3	--	4.6	2.9
1967	.9	-.3	-1.0	--	5.2	2.9
1968	3.6	3.2	3.6	0	5.2	4.2
1969	5.1	4.8	5.3	.9	6.1	5.4
1970	5.5	5.1	4.2	12.7	7.4	5.9
1971	3.0	2.4	1.8	7.2	5.2	4.3
1972	4.3	4.5	4.8	1.7	4.0	3.3
1973	14.5	16.3	17.3	8.9	7.9	6.2
1974	14.4	14.9	13.8	23.8	12.7	11.0
1975	8.5	8.3	7.2	16.7	9.3	9.1
1976	3.1	2.1	1.0	9.8	6.8	5.8
1977	6.3	6.0	2.2	31.3	7.6	6.5
1978	10.0	10.5	11.3	7.4	9.0	7.7
1979	10.9	10.8	11.7	6.6	11.2	11.3
1980	8.6	8.0	7.2	11.7	9.9	13.5
1981	7.9	7.3	7.7	5.8	9.0	10.4
1982	4.0	3.4	3.6	2.7	5.3	6.1
1983	2.1	1.1	.9	1.9	4.4	3.2
1984	3.8	3.7	3.9	2.6	4.2	4.3
1985	2.3	1.4	1.2	2.6	4.0	3.6

-- = Not available

1/ Includes soft drinks, coffee, and other nonalcoholic beverages, fish and seafoods, candy and chewing gum, imported sugar, seasonings, and bananas. Data were estimated for 1968 through 1978 based upon the relative importance of these foods in the total food at home index and the price changes for domestic food and food at home.

To study more closely the reasons for changes in prices of domestically produced foods, USDA separates the retail cost for a market basket of foods into the farm value or payment received by farmers for these foods and the farm-to-retail price spread. This price spread represents the charges for assembling foods from farms, processing them, and distributing them to consumers. In 1985, the farm value of foods fell 6.9 percent, the main reason for the small retail price increase. The farm-to-retail price spread increased 5.3 percent and accounted for nearly all of the foodstore price increase (table 2). The rise in prices of seafoods and other nonfarm foods accounted for the remainder. In 9 of the past 10 years, a rise in the farm-to-retail price spread contributed more to the rise in food prices than did changes in either the farm value or in the price of nonfarm foods.

Prices Rose Sharply in First Quarter

Foodstore prices rose 1.9 percent between the fourth quarter of 1984 and the first quarter of 1985, accounting for much of the total yearly rise in prices. Increases primarily reflected weather-related reductions in fruit and

Table 2--Contribution of food-price components to price increases at foodstores

Year	Change in foodstore prices due to--			Added up to a retail price increase of--
	Farm value of food	Farm-to-retail price spread	Nonfarm foods	
	----------Percentage points----------			Percent
1968	1.7	1.5	0	3.2
1969	3.0	1.7	.1	4.8
1970	-.2	4.0	1.3	5.1
1971	.1	1.5	.8	2.4
1972	3.0	1.3	.2	4.5
1973	11.6	3.7	1.0	16.3
1974	3.2	9.2	2.5	14.9
1975	1.3	5.1	1.9	8.3
1976	-1.8	2.7	1.2	2.1
1977	.1	1.8	4.1	6.0
1978	4.7	4.4	1.4	10.5
1979	3.3	6.3	1.2	10.8
1980	1.6	4.3	2.1	8.0
1981	.9	5.4	1.0	7.3
1982	.1	2.9	.4	3.4
1983	-.6	1.4	.3	1.1
1984	1.5	1.7	.5	3.7
1985	-1.9	2.9	.4	1.4

Source: Derived from U.S. Department of Labor, Bureau of Labor Statistics data and USDA market basket statistics.

vegetable supplies. Retail vegetable prices jumped 57 percent in the winter quarter mainly due to a severe freeze in Florida that damaged many fresh vegetable crops. Among other food groups, fish and seafood prices rose sharply, reflecting smaller supplies of fresh fish in the winter months. Prices of red meat and most other food groups rose about 1 percent in the first quarter. Foodstore prices were nearly stable from the first to the fourth quarter of 1985. Lower retail prices for red meat and fresh vegetables contributed to the stable level of the CPI for food at home. The overall level of food prices in the fourth quarter averaged 1.7 percent above a year earlier, reflecting the rise in prices in the first quarter of 1985.

For the year, prices of most foods either rose less than in 1984 or declined. Red meat prices, the largest expenditure category in the CPI, averaged 1.0 percent lower in 1985 than in 1984. Large meat supplies led to the 1985 decline in meat prices. Record-high slaughter weights of cattle bolstered beef output. Large supplies dropped retail beef and veal prices 2.1 percent last year. Pork supplies remained high due partly to the influx of foreign pork. Pork product imports grew by 20 percent in 1985. Prices for pork were virtually unchanged in 1985.

Retail poultry prices averaged 1.0 percent lower in 1985 than in 1984, a relatively small decline considering that producers increased their output by about 4.5 percent. The strength of consumer demand, reflecting poultry's low price relative to other meats and the increased use of poultry meat by restaurants, kept prices from dropping further. Egg prices averaged 16.6 percent lower in 1985, the largest price decline among major food groups. In 1984, egg prices were record high because of an avian flu outbreak that destroyed some laying hens and caused egg shortages.

Retail dairy product prices rose 1.9 percent, the largest annual increase in 4 years. This rise reflected an increase of over 7 percent in the farm-to-retail price spread for dairy products last year. Farm prices of milk fell in 1985 due to a decline in the support price and record-large milk production.

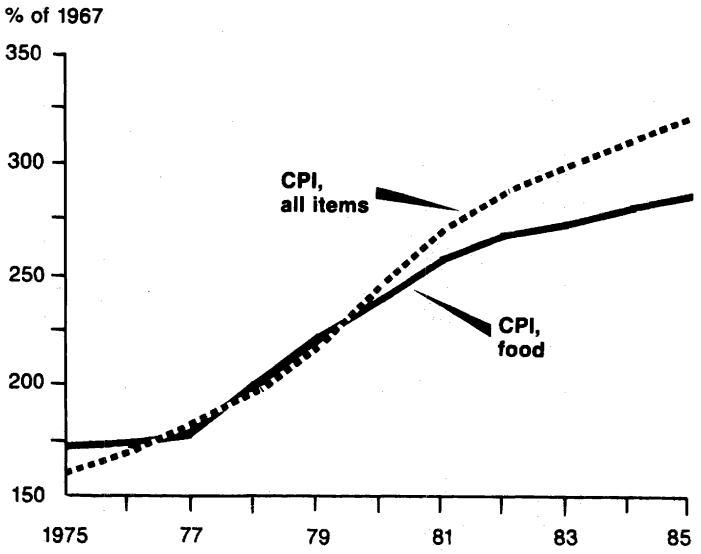
Among major groups of foods, retail prices in 1985 increased the most for fresh fruits, up 10.1 percent. Smaller supplies, particularly of oranges, apples, peaches, and other summer fruit accounted for most of the price rise. Supplies were small partly due to frost and freeze damage to orange groves and peach orchards.

Fresh vegetable prices averaged 4.3 percent lower in spite of high winter prices. Among highly processed and prepared foods, prices rose the most for cereals and bakery products, by 3.8 percent.

Foodstore prices in 1985 rose less than the overall inflation rate of 3.6 percent, as measured by the CPI for all items (fig. 2). This was the seventh consecutive year that food prices increased less than nonfood prices. Food prices rose more slowly because farm prices have not kept pace with general price levels. Farm value increased only 15 percent from 1978 to 1985, whereas the CPI for all goods and services went up 65 percent.

Figure 2

Food Prices Rise Less Than Other Consumer Prices



Source: Consumer Price Index, Bureau of Labor Statistics, U.S. Department of Labor.

Food Consumption Up

As a result of last year's abundant supplies of most food and relatively small rise in food prices, total food consumption rose for the third consecutive year. USDA's per capita food consumption index, which is calculated from pounds of food and retail prices in a base year, rose about 1 percent last year and was about 4 percent higher than in 1982 (table 3). Increases in consumption of poultry, fresh fruit, and sweeteners accounted for most of the rise. Food consumption has been relatively stable over the long term, increasing by only about 4.5 percent during the 15-year period from 1967 to 1982. Food consumption data are derived from information on total supply and use of farm products and therefore are not direct measures of consumption. Rather, they measure disappearance of food from commercial channels.

Beef and veal consumption rose slightly to 81 pounds per person on a retail weight basis in 1985. Pork consumption held steady at 62 pounds per person. Poultry consumption continued a long upward trend, increasing about 2.5 pounds per person to nearly 70 pounds. The use of dairy products rose because of higher consumption of cheese and low-fat milk products. Per capita consumption of most crop products was relatively stable in 1985.

Over the years, consumers have altered their consumption of major food groups. For instance, from 1975 to 1985, beef and veal consumption fell 10 pounds per person, but pork consumption rose 11 pounds and poultry consumption jumped 21 pounds. This change in consumption patterns was partly in response to changes in the relative prices of beef and veal, pork, and poultry. Pork

and poultry prices have increased much less than beef and veal. During the 10-year period from 1975 to 1985, beef and veal prices increased 59 percent, pork increased 28 percent, while poultry prices went up 33 percent. Thus, in relation to beef and veal, pork and poultry prices declined. 1/

In 1985, per capita egg consumption was record low, but the long-term decline in consumption has slowed in recent years. Dairy product consumption rose slightly since 1982 but last year was 3 percent lower than in 1975.

Among crop foods, per capita consumption of fresh fruits during the past 10 years rose 5 pounds, reflecting rising consumption of noncitrus fresh fruits such as grapes. Consumption of eight major commercial fresh vegetables rose 13 pounds per person from 1975 to 1985, mainly reflecting rising consumption of fresh tomatoes, lettuce, onions, and broccoli. Consumption of fats and oils increased 7 pounds per capita since 1975, reaching a record-high 63 pounds last year. Similarly, sugar and sweetener consumption jumped from 125 pounds in 1975 to 148 pounds in 1985.

Table 3--Annual per capita food consumption, retail weight equivalent

Food group	1975	1982	1983	1984	1985 1/
			1967=100		
Aggregate food consumption index	102.4	104.5	106.7	107.5	108.6
			Pounds per capita		
Red meat	144	139	144	144	144
Beef and veal	91	79	80	80	81
Pork	51	59	62	62	62
Poultry	49	64	65	67	70
Eggs	35	33	33	33	33
Dairy products	319	302	304	306	309
Flour and cereal products	144	154	149	149	152
Fats and oils, including butter	56	61	63	62	63
Fresh fruits	82	84	88	87	87
Fresh vegetables 2/	63	71	71	76	76
Sugars and sweeteners, caloric	125	139	142	147	148

1/ Preliminary. 2/ Data are for lettuce, tomatoes, onions, carrots, celery, corn, broccoli, and cauliflower.

1/ For more detailed and historical information, see Food Consumption, Prices, and Expenditures, 1964-84, SB-736, USDA, Economic Research Service, Nov. 1985.

FARM VALUE

Farm value is a measure of the return or payment received by farmers for the farm products equivalent to retail foods. Market basket farm value serves as an index of prices farmers receive for products later used for food. Farm values for individual food items are expressed in dollar amounts for comparison with the item's retail price. Farm value is calculated by multiplying farm prices by the quantities of farm products equivalent to foods sold at retail. An allowance is made in farm values if byproducts are obtained in processing. The farm value usually represents a larger quantity than the retail unit because the foodstuffs farmers produce lose some weight in storage, processing, and distribution.

The farm product equivalent varies among foods. Only a slight amount of raw milk is lost, for example, as it is handled and processed for sale in cartons to consumers. Therefore, the farm value of the retail price per half-gallon is just a little more than the price that milk producers received per half-gallon. In contrast, nearly 2.4 pounds of live animal are needed to yield 1 pound of Choice beef on the meat counter. The payment the cattle producer receives for that larger quantity of live animal is the farm value in the price of 1 pound of retail beef.

1985 Developments

In 1985, U.S. farmers harvested record and near-record crops. Planted acreage was large and growing conditions were excellent in nearly all parts of the country. The corn harvest was the largest ever, and the soybean crop was the second largest on record. Market prices of corn and soybeans moved downward all year in response to larger crop prospects. Wheat production declined, but surplus stocks kept prices low all year. Contrary to expectations, meat production continued to rise with total output up 1.7 percent. The increase resulted largely from a higher than expected beef slaughter and rising poultry output. Pork production remained unchanged. The large meat supplies severely depressed livestock prices, especially for cattle. With large supplies of foodstuffs and lower farm prices, the farm value of retail food products dropped sharply.

The farm value of foods in the market basket averaged 6.9 percent lower than in 1984 (table 4). This decline more than offset a modest rise in 1984 and left the farm value nearly the same as in 1980. Since then, expanding crop and livestock production and weak demand have depressed prices.

Farm value in 1985 was highest in the first quarter of the year before the prospect of large harvests became evident and livestock products expanded. Farm value declined sharply in the spring in response to larger supplies of meat, greater supplies of fresh vegetables, and growing surpluses of dairy products. The decline continued through the third quarter, largely because of a further drop in livestock prices.

During the third quarter the farm value of the market basket averaged 10 percent lower than a year earlier. In the fourth quarter a rise in livestock prices boosted the farm value but only to the second-quarter level.

Table 4--Price changes for domestically produced foods 1/

Item	1981	1982	1983	1984	1985 2/
	Annual percentage change				
Market basket:					
Retail price	7.7	3.6	0.9	3.9	1.2
Farm value	2.8	.2	-2.2	5.4	-6.9
Farm-to-retail spread	10.5	5.5	2.5	3.2	5.3
Meat products:					
Retail price	3.6	4.8	-1.1	.3	-1.0
Farm value	.6	6.7	-6.2	2.5	-8.2
Farm-to-retail spread	6.7	3.0	4.0	-1.6	5.9
Dairy products:					
Retail price	7.1	1.4	1.2	1.3	1.9
Farm value	5.9	-1.5	.1	-1.2	-3.8
Farm-to-retail spread	8.4	4.4	2.3	3.6	7.3
Poultry:					
Retail price	4.1	-1.9	1.3	10.6	-1.0
Farm value	-.8	-3.9	5.9	17.7	-6.0
Farm-to-retail spread	10.0	.4	-3.4	2.6	5.5
Eggs:					
Retail price	8.3	-2.8	4.7	11.7	-16.6
Farm value	12.0	-8.1	8.9	11.1	-22.3
Farm-to-retail spread	1.5	7.8	-2.5	12.9	-5.9
Cereal and bakery products:					
Retail price	10.0	4.5	3.2	4.4	3.8
Farm value	-1.1	-12.5	5.6	1.6	-8.5
Farm-to-retail spread	11.6	7.1	2.9	4.7	5.4
Fresh fruits:					
Retail price	5.3	13.0	-6.1	13.7	11.1
Farm value	4.4	20.9	-23.8	43.2	-3.8
Farm-to-retail spread	5.6	10.2	.7	5.2	16.8
Fresh vegetables:					
Retail price	18.7	.5	3.6	10.9	-4.3
Farm value	41.2	-8.5	2.3	11.9	-14.1
Farm-to-retail spread	10.5	4.7	4.1	10.4	-.4
Processed fruits and vegetables:					
Retail price	12.0	5.3	1.0	6.0	2.6
Farm value	9.3	-5.4	-6.4	14.2	10.2
Farm-to-retail spread	12.8	8.5	2.9	4.1	.7
Fats and oils:					
Retail price	10.7	-2.7	1.2	9.5	2.2
Farm value	4.8	-20.8	20.8	29.3	-16.5
Farm-to-retail spread	13.1	4.1	-4.3	2.3	10.8
Other foods:					
Retail price	10.7	4.2	3.1	3.0	3.1
Farm value	4.8	-7.6	4.6	-3.4	-9.4
Farm-to-retail spread	13.1	6.3	2.8	4.0	5.1

1/ The market basket consists of fixed quantities of domestically produced foods derived from data on consumer expenditures in foodstores between July 1972 and June 1974. Retail price data are derived from U. S. Department of Labor, Bureau of Labor Statistics price indexes. The farm value is based on prices received by farmers for commodities equivalent to foods in the market basket. The spread between the retail price and farm value represents charges for processing and marketing functions. Some historical data have been revised. 2/ Preliminary.

Among the major commodities, farm values of nine food groups declined in 1985, while only one increased. Red meat's farm value, which accounts for about half of the total farm value of the market basket, averaged 8 percent lower. Farm value declined 6 percent for poultry and 22 percent for eggs. Dairy products declined 4 percent. The farm value of fresh vegetables fell 14 percent partly because of much larger supplies of fall potatoes. Farm values of crop-based products declined the most for fats and oils--16 percent--reflecting much lower prices of soybeans, the principal source of oil used in shortening and margarine. Farm value of bakery and cereal products fell 8 percent partly because of large wheat supplies that held down wheat prices.

Farm Value Share

For most foods, the farm value makes up a small part of the retail price. It averaged 31 percent for all foods in the market basket in 1985, compared with 34 percent in 1984 (table 5). The decline in the farm value share reflected the large decline in farm prices while retail prices rose, reflecting a moderate rise in processing and marketing charges. Farm value share of the retail cost of food averaged between 38 and 40 percent most years during the 1960's and 1970's but has trended down since 1979 because farm prices have not increased and retail prices have continued to rise. The size of the farm value share is not a direct measure of the welfare of producers, but a decline often accompanies a decline in farm income. In 1985, farm income fell to an estimated $29 to $32 billion from $34.5 billion in 1984.

Farm value as a share of the retail price varies greatly among foods. Farm value is a much larger percentage of the retail price of meats, eggs, poultry, and dairy products than for most other foods. For example, in 1985, the farm value share was 55 percent for Choice beef, 65 percent for eggs, and 53 percent for broiler chicken (table 6). Thus, changes in prices received by farmers for these commodities usually affect retail food prices the most. Lower farm prices for eggs and poultry, for instance, caused most of the decline in retail egg and poultry prices. Cattle prices also receded, and Choice beef prices went down. Retail beef prices, however, did not drop as much as the farm value because price changes at retail typically lag those at the farm. In addition, increasing marketing costs caused the farm-to-retail price spread to widen.

The farm value of most foods that come from grains, oilseeds, and fruits and vegetables represents a small share of the retail price. Last year, farmers received about 10 percent of bakery and cereal prices, 22 percent of processed fruit and vegetables prices, and 25 percent of fresh fruit and vegetable prices (table 7). Thus, declines in the farm value of these foods are more likely to be offset by changes in processing and marketing costs. For example, even though the farm value of commodities used in cereals and baked goods fell 8.5 percent, retail prices of these foods rose 3.8 percent.

DEVELOPMENTS IN THE FARM-TO-RETAIL PRICE SPREAD

The farm-to-retail spread is the difference between farm value and retail price. It represents payments for all assembling, processing, transporting, and retailing charges added to the value of farm products after they leave the farm.

Table 5--Indexes of retail price, farm value, and the farm-to-retail price spread for a market basket of farm foods, and farm value as a share of retail price 1/

Year	Retail price	Farm value	Farm-to-retail spread	Farm value share of retail price
	----------1967 = 100----------			Percent
1950	81	99	70	47
1951	90	114	75	49
1952	91	110	80	47
1953	88	102	80	45
1954	87	97	81	43
1955	85	90	82	41
1956	86	89	83	40
1957	89	93	86	40
1958	94	100	90	41
1959	92	92	92	39
1960	92	94	91	39
1961	92	92	93	39
1962	93	94	93	39
1963	93	90	95	38
1964	93	90	96	36
1965	96	99	94	38
1966	101	106	98	39
1967	100	100	100	39
1968	104	105	103	38
1969	109	115	106	39
1970	114	114	114	37
1971	116	115	116	37
1972	121	125	119	38
1973	142	168	127	44
1974	162	182	150	42
1975	174	188	165	40
1976	175	178	174	38
1977	179	178	180	37
1978	199	207	195	38
1979	223	229	219	38
1980	239	240	238	37
1981	257	247	263	36
1982	266	248	277	34
1983	269	242	284	33
1984	279	255	293	34
1985 2/	283	237	309	31

1/ The market basket consists of fixed quantities of domestically produced foods. It was derived from consumer expenditures in foodstores between July 1972 and June 1974. Retail price indexes are derived from Bureau of Labor Statistics data. Farm value is based on prices received by farmers for commodities equivalent to foods in the market basket. The spread between the retail price and farm value represents charges for processing and marketing functions. Some historical data have been revised. 2/ Preliminary.

The farm-to-retail price spread for the market basket of foods averaged 5.3 percent higher in 1985, the largest increase since 1982. The rise exceeded the 3.6-percent inflation rate as measured by the CPI for all items. The increase also exceeded price hikes for inputs used in food marketing. Therefore, the increase in the spread resulted largely from two factors: the time lag required for the declines in last year's farm prices to be passed through the marketing system and increases in the quantity of marketing inputs such as labor and advertising per unit of sales.

The farm-to-retail price spread widened most in the second and third quarter when farm value fell sharply. The price spread narrowed slightly in the fourth quarter when farm value rose moderately.

Price Spreads Increased for Most Foods

The farm-to-retail price spread increased for all but two major food groups in 1985 (see table 4). For most groups, increases were larger than in other recent years. The farm-to-retail spread for red meats rose by 5.9 percent, the largest increase since 1981. However, the 1985 decrease was preceded by a slight decline in 1984 when the average for all foods went up about 3 percent.

The farm-to-retail price spread increased between 5 and 10 percent for bakery and cereal products, fats and oils, poultry, and dairy products. The increases for these foods reflect declines in farm value and the relatively strong consumer demand for these foods in 1985, particularly poultry and dairy products, as evidenced by an increase in per capita consumption at relatively stable prices.

Table 6--Farm value share of retail prices of selected foods, 1985

Item	Retail price	Farm value	Farm-to-retail spread	Farm value share of retail price
	--------Dollars--------			Percent
Eggs, Grade A large, 1 doz.	0.80	0.52	0.28	65
Choice beef, 1 lb.	2.33	1.27	1.06	55
Chicken, broiler, 1 lb.	.76	.40	.36	53
Milk, 1/2 gal.	1.13	.56	.57	50
Frozen orange juice, 12 fl. oz.	1.30	.63	.67	48
Pork, 1 lb.	1.62	.71	.91	44
Sugar, 1 lb.	.35	.13	.22	37
Cheese, natural cheddar, 1 lb.	3.09	1.12	1.97	36
Flour, wheat, all purpose, 5 lb.	1.06	.33	.73	31
Shortening, 3 lb. can	2.65	.76	1.89	29
Margarine, 1 lb.	.80	.22	.58	28
Peanut butter, 1 lb.	1.54	.42	1.12	27
Rice, long grain, 1 lb.	.47	.11	.36	23
Potatoes, Northeast, 10 lbs.	1.60	.37	1.23	23
Oranges, Calif., 1 lb.	.53	.12	.41	23
Lettuce, 1 lb.	.53	.07	.46	13
Potatoes, frozen, French fried, 1 lb.	.71	.09	.62	13
Tomatoes, 1-lb. can	.52	.05	.47	10
White bread, 1 lb.	.55	.05	.50	9

Table 7--Market basket of food products originating on U.S. farms by food group: Index of retail cost, farm value, farm-to-retail price spread, and farm value share of retail cost, 1965-85 1/

Year	Meat products				Poultry				Eggs			
	Retail cost	Farm value	Farm-to-retail spread	Farm value share	Retail cost	Farm value	Farm-to-retail spread	Farm value share	Retail cost	Farm value	Farm-to-retail spread	Farm value share
	1967=100			Percent	1967=100			Percent	1967=100			Percent
1965	96	100	91	59	102	113	92	57	106	111	100	62
1966	104	107	100	58	108	117	99	53	121	135	99	66
1967	100	100	100	56	100	100	100	49	100	100	100	59
1968	101	102	100	54	104	107	101	57	108	112	101	61
1969	111	116	106	56	110	114	106	51	126	142	103	67
1970	117	114	120	53	108	102	114	46	125	132	114	63
1971	116	112	119	52	109	105	112	47	108	104	113	57
1972	129	133	125	56	110	108	111	49	107	104	112	57
1973	160	180	137	60	156	187	127	59	159	187	118	70
1974	163	162	164	54	148	169	128	56	161	182	126	68
1975	178	188	166	57	164	195	133	59	156	174	129	66
1976	178	170	188	53	157	175	140	55	174	203	135	68
1977	174	170	180	53	158	179	138	56	169	182	151	64
1978	207	206	207	54	173	205	142	58	158	174	135	65
1979	242	235	250	52	182	204	160	55	173	194	142	66
1980	249	234	266	51	191	212	170	55	170	184	149	64
1981	258	236	284	49	199	210	187	52	184	206	151	66
1982	270	251	292	50	195	202	188	51	179	190	163	63
1983	267	236	304	48	198	213	182	53	187	207	159	65
1984	268	242	299	49	218	250	188	56	209	230	178	65
1985	265	222	317	45	216	235	198	53	174	179	168	61

See footnotes at end of table.

--Continued

Table 7--Market basket of food products originating on U.S. farms by food group: Index of retail cost, farm value, farm-to-retail price spread, and farm value share of retail cost, 1965-85 1/--Continued

Year	Dairy products 2/				Fats and oils 3/				Fresh fruits and vegetables 4/			
	Retail cost	Farm value	Farm-to-retail spread	Farm value share	Retail cost	Farm value	Farm-to-retail spread	Farm value share	Retail cost	Farm value	Farm-to-retail spread	Farm value share
	-------1967=100--------			Percent	-------1967=100-------			Percent	-------1967=100-------			Percent
1965	91	85	96	44	96	107	92	31	99	104	96	33
1966	96	96	96	47	100	114	94	32	100	105	98	33
1967	100	100	100	47	100	100	100	28	100	100	100	32
1968	103	104	102	47	96	89	99	26	112	120	108	34
1969	106	109	103	48	96	91	98	26	112	113	112	32
1970	111	114	109	48	104	111	101	30	116	111	119	30
1971	115	116	113	47	114	129	108	32	122	122	122	32
1972	116	119	114	48	115	110	117	27	129	126	130	31
1973	127	135	119	50	127	173	110	38	154	168	148	34
1974	151	159	143	49	192	325	142	47	161	170	156	33
1975	154	164	146	50	207	254	189	34	165	172	162	33
1976	168	186	153	52	177	206	165	32	171	168	172	31
1977	173	187	163	50	192	249	170	36	195	193	196	31
1978	186	202	171	51	210	257	191	34	222	219	224	31
1979	207	230	187	52	226	278	206	34	238	217	248	29
1980	227	251	207	52	241	250	238	29	255	214	274	26
1981	244	266	224	51	267	262	269	27	287	265	297	29
1982	247	262	234	50	260	208	280	22	304	273	318	28
1983	250	262	239	49	263	251	268	26	301	247	326	26
1984	253	259	248	48	288	325	274	31	338	304	353	28
1985	258	248	266	45	294	271	303	26	347	275	380	25

See footnotes at end of table.

--Continued

Table 7--Market basket of food products originating on U.S. farms by food group: Index of retail cost, farm value, farm-to-retail price spread, and farm value share of retail cost, 1965-85 1/--Continued

Year	Processed fruits and vegetables 4/				Bakery and cereal products				Other foods 5/			
	Retail cost	Farm value	Farm-to-retail spread	Farm value share	Retail cost	Farm value	Farm-to-retail spread	Farm value share	Retail cost	Farm value	Farm-to-retail spread	Farm value share
	1967=100			Percent	1967=100			Percent	1967=100			Percent
1965	98	114	95	21	95	95	94	17	--	--	--	--
1966	100	108	99	20	98	104	97	18	--	--	--	--
1967	100	100	100	18	100	100	100	17	100	100	100	15
1968	106	116	104	20	104	98	105	16	101	105	100	15
1969	107	121	104	21	106	98	108	16	106	112	104	16
1970	109	113	109	19	112	104	114	16	111	115	110	15
1971	115	117	115	18	116	106	118	16	113	118	112	16
1972	117	122	116	19	116	112	117	17	116	124	114	16
1973	124	131	122	19	129	168	121	22	127	186	117	22
1974	152	184	145	22	167	243	152	25	215	422	179	29
1975	172	203	165	21	184	200	180	19	191	258	180	20
1976	174	197	169	20	181	162	185	15	179	181	179	15
1977	190	189	191	19	184	134	194	12	180	163	183	13
1978	209	284	192	25	200	154	209	13	194	193	194	15
1979	227	294	212	23	220	177	229	14	212	208	213	15
1980	242	311	227	23	246	207	255	14	240	324	226	20
1981	272	340	256	23	271	204	285	13	264	272	262	15
1982	286	321	278	20	283	179	305	11	275	252	279	14
1983	289	300	286	19	292	189	314	11	284	264	287	14
1984	306	344	298	20	305	192	329	11	292	268	296	14
1985	314	378	300	22	317	176	346	10	301	243	311	12

-- = Not available

1/ See table 5 for aggregate market basket and explanation of data. 2/ Includes butter. 3/ Excludes butter and includes peanut butter. 4/ Includes potatoes. 5/ Includes snacks, frozen prepared foods, sugar, soup, pickles, and miscellaneous products.

Farm-to-retail price spreads for fresh fruit rose 17 percent, and those for fresh vegetables were unchanged. These spreads tend to vary with the change in farm value because retail prices have traditionally been established by a percentage markup on cost. However, last year a decline in farm values was not accompanied by a decline in the price spreads, perhaps reflecting good demand for fresh produce and a change in retail pricing.

The farm-to-retail price spread for eggs declined about 6 percent following a large increase in 1984 when egg prices increased dramatically. Over time, increases in the price spread for eggs, as well as poultry, have been smaller than those for most other foods because poultry and egg processors have achieved greater economies of scale and have used more automation in processing and handling. Between 1980 and 1985, price spreads increased 13 percent for eggs and 16 percent for poultry compared with an average 30-percent increase for other farm foods.

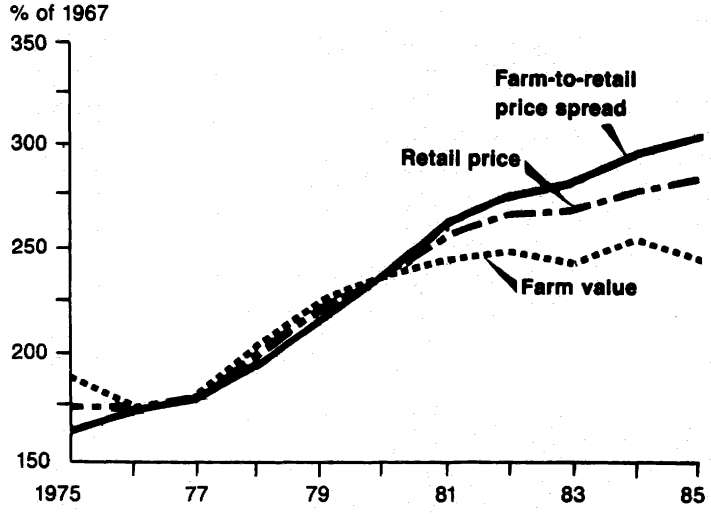
Farm Value Slows Rise in Food Prices since 1980

Retail prices of a market basket of farm foods bought in grocery stores rose 18 percent from 1980 through 1985. However, food prices rose much less than the 32.5-percent increase in the CPI for all items less food.

The slower rise in prices of domestically produced foods than the CPI can be traced to the farm value, which was not any higher last year than in 1980 (fig. 3). In contrast, the farm-to-retail spread rose 30 percent and accounted for all of the rise in retail food prices.

Figure 3

Retail Price, Farm Value, and Price Spread for Food



Data for a market basket of foods sold in retail stores. Farm value is prices received by farmers for commodities. Price spread represents all charges for processing and distribution.

The decade of the 1970's, in contrast to the period since 1980, was marked by practically no difference in the movement of the farm value and price spread. Between 1970 and 1980, all three market basket series--farm value, farm-to-retail spread, and retail price--slightly more than doubled. Moreover, the rise in retail food prices was nearly identical to the rise in the general price level.

The farm-to-retail price spread for the market basket of foods increased each year since 1980. Increases in the farm-to-retail spread usually were close to the general inflation rate reflecting the linkage, in terms of prices and competition for inputs, between the food industry and the national economy. With the rise in the general price level, input costs of the food industry have gone up, resulting in higher charges for processing and distributing foods.

USDA's food marketing cost index measuring prices of inputs increased about 26 percent since 1980. The increase in marketing input prices, therefore, nearly matched the rise in the farm-to-retail price spread of about 30 percent.

Farm value of food has been variable during the 1980's, rising some years and then declining. In 1981, very large crop production and expanded meat supplies limited the rise in farm value to under 3 percent. As a result, retail food prices went up much less than inflation. In 1982, crop harvests were again large. Although meat production declined slightly, there was virtually no increase in the farm value because domestic and foreign demand for agricultural commodities was weaker during the long recession. In 1983, the farm value declined because of a substantial increase in livestock production, particularly hogs, and continued large supplies and weak demand for most food commodities. Farm value rose about 5 percent in 1984 mainly due to higher prices for poultry, eggs, fruits, and vegetables. In 1985, the decline in farm value more than offset the rise the year before and brought it to practically the same level as in 1980.

FOOD INDUSTRY COSTS, PROFITS, AND PRODUCTIVITY

Many factors influence how much the food industry charges for its services. Food industry input costs, profits, and productivity largely determine how much is added to the price of food after it leaves the farm.

Prices of Marketing Inputs

Increases in farm-to-retail price spreads mainly reflect rising costs faced by food industry firms. These costs include wages and salaries of workers and prices of many inputs bought by marketing firms from other parts of the economy. USDA's Economic Research Service developed a marketing cost index (MCI) for monitoring and analyzing changes in labor costs and prices of other inputs. The MCI measures price changes for supplies and services used in processing, wholesaling, and foodstore retailing of domestically produced foods. It does not cover input prices for doing business at eating places, however. The MCI represents all nonfarm food marketing costs except depreciation of buildings and equipment, long-term interest, and profits.

Prices in the index are weighted by the quantities used in the base period. That means that the price changes of the items that the food industry uses the most have the greatest effect on the index.

The largest component of the index (47 percent) is labor costs, which is composed of hourly earnings of workers and employee benefits. Labor is followed in importance by food containers and packaging materials (15 percent), transportation rates (10 percent), and energy costs (8 percent). Other cost components include advertising, maintenance and repair services, insurance, short-term interest, rent, and miscellaneous supplies and services.

In 1985, the MCI rose only 0.6 percent, the smallest increase since the series began in 1967. Prices of marketing inputs tend to follow movements in the general price level of the economy because these inputs include a broad range of goods and services. Last year, however, the general inflation rate, as measured by the implicit price deflator for gross national product, rose 3.3 percent.

Price changes were small for most of the principal categories of inputs bought by the food industry (table 8). The index of prices paid for food containers and packaging materials was unchanged in 1985. Prices for paperboard products, such as shipping boxes and milk cartons, declined about 2 percent after rising sharply in 1984. Prices for metal cans advanced by over 4 percent.

A combined price index of fuels and electricity declined about 2 percent in 1985. Prices of petroleum products (diesel fuel and fuel oil) fell about 7 percent, but electric rates rose 3 percent. Prices for natural gas and liquid propane gas, a principal energy source for food processing, declined about 1 percent.

A price index of supplies used by food processors and retailers averaged less than 1 percent higher in 1985. This index is based on producer prices of motor vehicle supplies, chemicals, cleaning materials, and numerous other items. Prices for services, such as maintenance and repairs, increased about 3 percent.

Labor costs, the principal component of the MCI, were unchanged in 1985, compared with a rise of 3 percent in 1984 and 4 percent in 1983. The labor cost index includes both hourly earnings of workers and wage supplements, principally employer Social Security and unemployment taxes, pensions, and health insurance.

Hourly earnings represent about 80 percent of the labor index. Last year, there was no change in the total labor cost index mainly because of a decline of about 4 percent in average hourly earnings of workers in food retailing. The lower average hourly earnings can partially be traced to labor contracts negotiated in recent years. Many of these contracts established a two-tier wage system for supermarket employees whereby new hires have a lower wage scale than current workers. In addition, many chain stores have closed in recent years. Even though many of these stores subsequently reopened under new management, the reemployed workers usually are paid lower wages. Hourly earnings continued to increase in food manufacturing and in wholesaling but at a slower rate in 1985 (table 9). The increases reflected smaller new wage settlements, reduced cost of living adjustments (COLA's) to wages of many workers, and no change in the minimum wage.

Labor supplements increased by an estimated 4 to 5 percent in 1985. The increase in costs included a rise in the Social Security tax rate for employers from 7.00 to 7.05 percent and an increase in the maximum amount of

Table 8--Price changes in food marketing inputs 1/

Cost item	1980	1981	1982	1983	1984	1985 2/
			1967 = 100			
Labor 3/	392.6	321.3	342.7	356.7	367.3	367.3
Packaging materials	261.4	280.9	275.2	280.7	307.7	308.2
Paperboard boxes and containers	234.7	258.2	254.9	251.0	281.2	275.1
Metal cans	325.7	345.8	363.6	374.3	397.3	414.6
Transportation	297.9	345.9	371.0	374.5	390.9	393.9
Fuel and electricity	564.0	669.2	705.1	705.1	712.5	699.7
Electricity	320.1	367.9	406.0	417.9	440.0	453.8
Petroleum	850.8	1,056.2	1,012.4	895.2	880.4	821.5
Natural gas	733.7	826.3	990.3	1,155.6	1,162.6	1,155.8
Maintenance and repair	277.1	304.0	325.1	338.2	350.4	360.3
Supplies	258.8	283.8	289.1	286.5	288.3	287.8
Interest, short term	240.3	288.8	232.6	174.0	198.4	157.2
Total marketing cost index	286.2	317.5	333.8	343.4	357.7	360.0
			Annual percentage change			
Labor 3/	10.1	9.8	6.7	4.1	3.0	0
Packaging materials	14.4	7.5	-2.0	2.0	9.6	.2
Paperboard boxes and containers	16.1	10.0	-1.3	-1.5	12.0	-2.2
Metal cans	11.2	6.2	5.1	2.9	6.1	4.4
Transportation	18.5	16.1	7.3	.9	4.4	.8
Fuels and electricity	34.9	18.7	5.4	0	1.0	-1.8
Electricity	18.4	14.9	10.4	2.9	5.3	3.1
Petroleum	48.1	24.1	-4.1	-11.5	-1.7	-6.7
Natural gas	34.7	12.6	19.8	16.6	.6	-.6
Maintenance and repair	11.0	9.7	6.9	4.0	3.6	2.8
Supplies	15.4	9.7	1.9	-.9	.6	-.2
Interest, short term	12.6	20.2	-19.5	-25.2	14.0	-20.8
Total marketing cost index	13.5	10.9	5.1	2.8	4.2	.6

1/ Data measure changes in prices for fixed quantities of labor and other inputs used in processing, wholesaling, and retailing farm foods sold through foodstores. 2/ Preliminary. 3/ Hourly earnings and benefits.

taxable wages from $37,800 to $39,600. Other employer-paid health and welfare costs continued to rise, but employers have slowed the rise in these costs by reducing benefits or requiring employees to pay a share out of their wages.

Collective bargaining contracts settled in the food industry during 1985 provided relatively small wage increases, assuming that they were similar to the pattern for all industries. Settlements in private industry during 1985 provided average wage increases of 2.3 percent in the first year of the contracts, according to data compiled by the U.S. Department of Labor. This increase was the lowest for any year since the series began in 1968. There also was further deceleration in employee benefits such as premium pay for work on weekends and holidays, paid leave such as vacation, and insurance benefits.

Last year was not a particularly heavy year for union contract negotiations in the food industry. However, there was a continuation of employee concessions on compensation and two-tier wage packages that have been prevalent in labor contracts negotiations in the food retailing industry in recent years. Several strikes also occurred. Labor settlements varied among geographic areas of the country, reflecting local economic conditions and, in particular, unemployment levels. Union workers agreed to wage givebacks and two-tier wage scales in some markets because of the fear of job loss in an industry facing stiff competition from nonunion stores with lower labor costs. For instance, 5,400 workers in stores located in Kentucky and Southern Indiana agreed to forego a 40-cent wage increase as part of a new 3-year contract that freezes wages. In exchange, some workers will receive lump-sum cash payments and the employer will increase its health and welfare contributions. While an atmosphere of worker concession pervaded the compensation issue nationally, food retailing workers in some parts of the country negotiated increases in wages and benefits and reached settlements guaranteeing greater job security.

Table 9--Average hourly earnings of production and nonsupervisory employees of food industries

Year	Manufacturing, food and kindred products	Wholesale trade, groceries, and related products	Foodstores	Eating and drinking places
		Dollars per hour		
1977	5.37	5.43	4.77	2.93
1978	5.80	5.92	5.23	3.22
1979	6.27	6.39	5.67	3.45
1980	6.85	6.96	6.24	3.69
1981	7.44	7.57	6.85	3.95
1982	7.92	8.25	7.22	4.09
1983	8.19	8.70	7.51	4.27
1984	8.38	9.13	7.65	4.33
1985	8.54	9.43	7.36	4.36

Source: Employment & Earnings, U.S. Department of Labor.

In one of the largest food retailing labor settlement in 1985, 14,000 clerks and other workers employed by eight food retailers in New York agreed to a 3-year contract that provides for a 4.2-percent annual wage increase each year. Wages for full-time clerks will increase from $10.37 per hour to $12.37 per hour in 1988 when the contract expires. Employers also will increase contributions to the pension fund and boost health and welfare benefits. However, the contract changes Sunday pay for new part-time workers from double time to time-and-a-half, the first such concession in a New York City-area contract.

The transportation cost index representing railroad freight rates averaged only 0.8 percent higher in 1985, compared with a 4.4-percent rise a year earlier. Perhaps reflecting the small rate increase, shipments of foodstuffs totaled 565,600 box cars, about 1 percent higher than in 1984. Some food items, including meat and fresh fruits and vegetables, are shipped in truck trailers carried on special railroad flat cars (TOFC) but information on these charges are not available. Shipments of fresh fruits and vegetables by TOFC rose about 3 percent during 1985, but their market share remained at 7.2 percent of total produce shipments.

About 86 percent of fresh produce is transported by truck. Independents, or individuals who own and operate trucks, appear to carry about 40 percent of the west to east shipments of produce and less than 50 percent of the shipments from Florida. The bulk of the produce is hauled by trucking firms operating fleets and by companies whose principal business is not transportation. Some owner-operators now lease their equipment and their services as drivers to these companies. All groups of truckers have become important in distributing fresh and processed food, and competition among them for produce hauling has held down transportation charges.

Costs of operating trucks, as reported by USDA's Office of Transportation, rose about 1 percent in 1985. In the early 1980's, costs of fleet operations averaged about 4 cent per mile below those of owner-operators. In 1983, the cost difference narrowed, and for the past 2 years costs have been nearly equal.

Owner-operators typically do not own buildings and loading docks, thus saving the 1.6 cents-per-mile average cost of such facilities for fleet operators. While fleet operators can obtain some volume discounts on bulk fuel purchases, fleet operators' fuel expense averaged less than 0.3 cent per mile less than owner-operators in 1985. On average, owner-operators pay themselves about 34 cents per mile, while fleet operators pay their drivers about 31 cents per mile. Both kinds of truckers experienced major increases in the cost of insurance during 1985. For owner-operators, insurance costs rose 10 percent to 8.5 cents per mile from January to December of 1985. Fleet operators experienced a 56-percent increase to 6.7 cents per mile during the same period.

The Motor Carrier Act of 1980 requires all truckers to carry liability insurance coverage for "environmental restoration." Insurance industry spokespersons say they do not fully understand what the term means, worry that it could be broadly interpreted by courts, and fear that the risks they assume for this coverage could be quite large. Under the terms of the act, required insurance coverage on January 1, 1985, rose from $500,000 to $750,000 for all carriers and from $1 million to $5 million for haulers of hazardous materials. Insurance companies apparently did not take notice of this until late in the year.

Although insurance costs at year end amounted to only 6 to 7 percent of total costs, insurance coverage and costs had become issues of great concern to the trucking industry with implication for future hauling charges. Some regulated carriers, which transport much of the processed foods, reported insurance premium increases of 400 to 500 percent. Many insurance companies have refused to renew liability coverage for both independents and fleet operators. The Interstate Commerce Commission (ICC) has revoked the operating authority of 3,400 regulated carriers for failure to carry adequate insurance, and self-insurance is not an option. Some of the larger carriers have sufficient assets to insure themselves, but the administrative rules of the U.S. Department of Transportation, which govern truck insurance, contain no provisions for self-insurance.

Rates for shipping fresh produce did not react to rising trucking costs during 1985. For example, the rate of $3.62 per box for lettuce shipped from California to New York City was 3 cents below 1984. For citrus and vegetables, rates averaged $3.06 per box, 12 cents lower (table 10). The decline in rates can be attributed in large part to competition among haulers and to an expansion of the Nation's truck fleet. An estimated 19,900 refrigerated trailers entered the fleet during 1985, 3,000 less than 1984's record but about a third

Table 10--Trucking costs and rates for fresh fruits and vegetables, selected items and routes, annual average, 1980-85

Year	Truck cost 1/	Truck rates by commodity and origin/destination 2/		
	Owner operators	Lettuce 3/ California to New York City	Citrus and vegetables Southern California to New York City	Apples Washington to New York City
	Dollars per mile	Dollars per box		
1980	1.00	3.36	2.77	3.09
1981	1.12	3.45	2.77	3.25
1982	1.16	3.62	2.91	3.20
1983	1.14	3.62	2.98	3.41
1984	1.15	3.65	3.18	3.19
1985	1.16	3.62	3.06	3.20
		Percent		
Change from 1980-85	16.0	7.7	10.5	3.6

1/ Truck costs developed by Office of Transportation, USDA. 2/ Truck rates are the average rates reported by Agricultural Marketing Service, Market News Service, USDA, for the first week of the month. Rates per truck were converted for 1980 to 1983 at: Lettuce 800 boxes/load, citrus and vegetables 1,000 boxes/load, apples 900 boxes/load. Beginning in 1984, rates were converted at 850 boxes/load of lettuce from Salinas, California and 860 boxes/load for lettuce from Imperial Valley, California, and 1,000 boxes/load for apples. 3/ January to April: Imperial Valley, California to New York City; May to December: Salinas, California to New York City.

more than during the 1981-83 period. The unit cost of these trailers was approximately equal to those added in 1984, so average vehicle depreciation costs remained unchanged.

Little information is available on rates for processed foods. As the year ended, however, some regulated truckers and railroads began imposing insurance surcharges that reflected increased insurance costs.

Food Industry Profit Margins

Profit margins of food processors and retail food chains are small relative to labor and other costs and, therefore, usually account for only a relatively small part of the rise in marketing charges.

Profit margins of food chains typically average about 1.5 cents per dollar of sales and about 1 cent after taxes. Profits per dollar of sales of food manufacturers are higher, averaging 5 to 6 cents before taxes and slightly over 3 cents after taxes, mainly because of their much larger capital investment per dollar of sales.

The profit margins of many food processors were relatively stable. Although ingredient costs were lower because of the decline in many food commodity prices in the latter part of 1984 and in 1985, greater emphasis on merchandising (advertising, couponing, and promotions) boosted operating costs and held down profit margins. Food manufacturers' after-tax profit margins averaged 3.3 percent of sales in 1985, the same rate as in 1984, based on data compiled by the Bureau of Census. Returns on stockholders' equity was virtually unchanged at 13.2 percent last year (table 11).

Profit margins of retail food chains were slightly lower but were higher than most other years in the past decade. Profit margins of retail food chains averaged 1.3 percent of sales in 1985, down from 1.4 percent a year earlier. Supermarket profit margins were highest in the fourth quarter, averaging 1.5 percent of sales, because of holiday buying.

Food chains' profit margins during the past 2 years have exceeded the traditional industry standard partly because of reduced cost pressures, particularly for labor and energy. Retailers have also been opening larger supermarkets that carry more nonfood items which have higher markups than groceries.

The profit picture for individual leading food chains varied in 1985 (table 12). Among 13 leading food retailing companies, profits after taxes ranged from 0.6 percent to 2.5 percent of sales. Profit margins of most companies last year were very similar to 1984. One company, Allied Supermarkets, greatly bettered their profit margin per dollar of sales following a breakeven year in 1984. In contrast, the profit margin of Stop & Shop was cut in half. Safeway and Kroger, the largest food chains, earned about the same profit margins in 1985 but were below the industry average.

Food Industry Labor Productivity

Food industry productivity estimates for 1985 were not available at press time. Even so, there have been some early pointers.

Table 11--Profit margins of food manufacturers and retail food chains, industry averages

Year and quarter	Food manufacturers 1/			Retail food chains 2/		
	After-tax profits as a percentage of--					
	Sales	Stockholders' equity	Assets	Sales	Stockholders' equity	Assets
	Percent					
1976	3.5	14.9	7.5	0.8	10.0	4.3
1977	3.1	13.2	6.7	.8	10.7	4.5
1978	3.3	13.8	6.8	.9	12.7	4.7
1979	3.3	14.7	7.2	.9	12.7	4.2
1980	3.4	14.7	7.1	.9	13.7	4.5
1981	3.1	13.6	6.5	1.0	13.9	4.7
1982	3.1	13.0	6.3	.9	12.7	4.4
1983	3.3	12.3	6.0	1.1	13.6	4.9
1984	3.3	13.3	6.0	1.4	17.3	6.0
1985	3.3	13.2	5.6	1.3	14.5	5.3
1981:						
I	3.0	13.4	6.3	.8	11.8	3.8
II	3.2	14.1	6.8	.9	13.2	4.5
III	3.2	13.8	6.6	.6	9.3	3.1
IV	3.3	14.6	6.9	1.5	21.0	7.2
1982:						
I	2.8	12.0	5.7	.1	.9	.3
II	3.2	13.7	6.6	1.2	16.5	5.7
III	2.7	11.5	5.5	1.0	13.5	4.6
IV	3.6	14.8	7.2	1.5	19.3	6.7
1983:						
I	2.2	8.0	3.9	1.0	11.8	4.3
II	3.4	12.5	6.2	1.2	14.2	5.2
III	3.5	13.2	6.5	.9	11.2	4.0
IV	4.0	15.2	7.4	1.3	17.0	6.0
1984:						
I	3.3	13.0	6.1	1.5	18.0	6.5
II	3.3	13.8	6.4	1.4	17.6	5.9
III	3.1	12.8	5.7	1.2	14.3	4.8
IV:	3.3	13.6	5.9	1.6	19.2	6.9
1985:						
I	2.7	10.9	4.6	1.1	13.0	4.7
II	3.2	13.1	5.6	1.3	14.9	5.5
III	3.6	14.2	6.2	1.2	13.2	4.8
IV	3.7	14.7	6.2	1.5	16.8	6.3

1/ Data represent aggregate estimates for corporations based on a sample of company reports. 2/ Data are based on reports from all food retailing corporations having more than $100 million in annual sales, at least 70 percent of which are derived from supermarket operations.

Source: Federal Trade Commission.

First, we have estimates that there was no gain in productivity during 1985 in the Nation's business sector, excluding farming (table 13). Second, there was a rise in employment in the food industries which could have offset increases in output. Last, looking at the long-term trend, productivity has not been rising in food retailing and eating places, making it probable that productivity did not increase in 1985.

However, there has been a long uptrend in labor productivity in industries that manufacture food which, it is reasonable to assume, continued in 1985. Output per unit of labor in food manufacturing showed a steady increase of 2 to 3 percent per year over the past 15 years. These increases resulted from an upward trend in output and a small decline in hours worked, reflecting in part the substitution of capital for labor as a consequence of new technology. Labor productivity among food manufacturers has increased most in fluid milk processing and grain milling (table 14). Productivity has grown erratically for most industries, partly because of ups and downs in farm output and business conditions.

Labor productivity among supermarkets suffered a series of setbacks in the seventies and has shown very little improvement in recent years despite some recent changes in operations. These include computer-assisted checkout systems and data processing systems, and the introduction of new store formats such as warehouselike stores with a limited assortment of products. These stores provide reduced services and thus cut labor requirements, or they foster higher sales per unit of labor. Many food chains also have closed smaller, inefficient stores. On the other hand, supermarkets have been responding to consumer demand for time saving in food buying and preparation by expanding service departments that offer

Table 12--After-tax profits of selected supermarket food chains per dollar of sales, fiscal year or four calendar quarters

Firm	1983	1984	1985
		Percentage of sales	
Albertson's	1.64	1.68	1.68
Allied Supermarkets	-.25	.02	.65
American Stores	1.48	1.53	1.11
Atlantic & Pacific Tea	.54	.86	.85
Food Lion	2.36	2.54	2.55
Giant Food	2.07	2.11	2.54
Grand Union	NA	-.20	.63
Kroger	.83	1.01	1.06
Lucky	1.29	1.08	1.03
Safeway	.99	.94	1.00
Stop & Shop	1.19	1.62	.82
Supermarkets General	1.16	1.21	1.24
Winn-Dixie	1.60	1.47	1.34

NA = not available

Source: "Food Institute Reports," The American Institute of Food Distribution Inc., Fair Lawn, New Jersey.

prepared foods and nonfood products. Providing the products and shopping convenience consumers want has added to industry employment and made productivity gains more difficult. In addition to tailoring products to consumer demand, many supermarkets are trying to make shopping easier and faster by opening more registers at busy times and extending store hours to accommodate pressed-for-time shoppers. Output per hour of labor in foodstores in 1984 was 1.0 percent lower than in 1983 and below the level attained by the industry in the midseventies.

The trend in productivity is similar for eating places. Labor productivity in eating and drinking places has been nearly stable since the midseventies, perhaps because of a growing number of fast-food establishments. In 1984, productivity dropped more than 2 percent.

Table 13--Productivity measured by output per unit of labor

Year	Food-stores	Eating and drinking places	Nonfarm business sector of the economy
		1977=100	
1967	98.0	97.5	87.0
1968	103.0	99.7	89.3
1969	103.9	97.8	88.9
1970	109.8	101.0	89.1
1971	110.4	98.3	91.8
1972	110.3	102.3	94.7
1973	105.5	103.6	96.4
1974	101.1	99.1	94.3
1975	100.7	101.0	96.0
1976	102.0	101.4	100.0
1977	100.0	100.0	100.0
1978	95.4	99.2	100.8
1979	97.3	99.1	99.2
1980	99.7	99.2	98.8
1981	96.8	96.5	99.8
1982	95.2	95.9	99.2
1983	96.9	96.4	102.6
1984 1/	95.9	94.4	104.3
1985 1/	--	--	104.2

-- = Not available.
1/ Preliminary. Some historical data were revised.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 14--Indexes of output per employee hour in selected food manufacturing industries

Year	Red meat products	Fluid milk	Preserved fruits and vegetables	Grain mill products	Bakery products	Sugar
			1977 = 100			
1967	74.8	62.9	73.8	73.0	82.8	77.1
1968	76.6	66.5	75.6	77.0	84.5	80.5
1969	75.7	69.6	76.9	78.3	84.7	78.6
1970	77.3	73.7	79.7	79.7	87.5	85.9
1971	79.3	79.4	83.1	83.3	89.5	84.9
1972	85.0	85.1	84.6	85.5	94.1	90.4
1973	82.8	88.4	93.1	81.7	93.6	96.3
1974	84.5	90.9	91.7	86.4	93.6	93.2
1975	84.4	95.5	93.7	87.1	93.4	94.0
1976	93.4	99.5	100.1	91.1	93.9	95.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.8	108.6	104.1	100.2	97.6	98.3
1979	101.7	117.3	98.9	101.0	95.0	103.1
1980	107.0	126.5	100.8	105.3	93.7	100.1
1981	107.9	131.8	99.2	110.9	96.2	98.8
1982	112.3	140.0	107.9	121.0	103.2	90.4
1983	116.2	147.1	110.4	125.3	106.6	98.6
1984	115.1	--	--	--	--	105.2
Average annual change:			Percent			
1967-83 1/	2.6	5.5	2.6	3.5	1.6	1.8
1979-83 1/	2.5	5.8	2.8	5.5	2.9	.4

-- = Not available.

1/ For red meats and sugar, the changes are calculated through 1984.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

FOOD SPENDING: HOW IT WAS DISTRIBUTED

Food spending (what consumers actually spent for domestically produced foods in 1985) depends on quantities bought as well as the prices paid. The expenditures reported in this section include spending at eating places, not just at foodstores. As was done for food prices, food expenditures are broken down into two components:

- The farm value is an estimate of the dollar value at the point of sale by farmers of the farm commodities equivalent to foods purchased by consumers at foodstores and eating places.

- The marketing bill is the difference in dollars between the farm value and retail expenditures.

Last year's changes in the marketing bill can be best evaluated by dividing the total bill into costs for several principal marketing functions--such as processing and retailing--and also by breaking it down into costs for principal inputs such as labor and packaging.

Nearly all of the estimates just mentioned are based on secondary data, not on direct measures of either consumer food expenditures or actual marketing costs. This limits their accuracy. So consider them as general indicators, not precise measures, of how much was spent and the changes of last year.

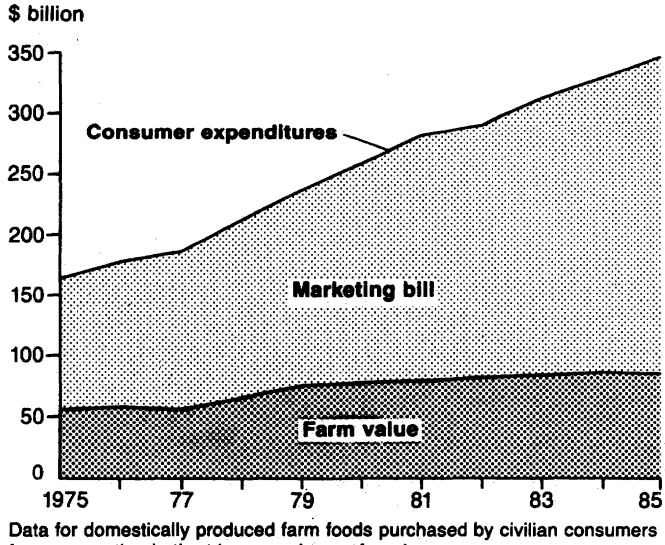
Food Expenditures Were Up

Consumers spent $344 billion for foods originating on U.S. farms in 1985 (fig. 4 and table 15). This amount was less than the total consumers spent for all food because it excluded expenditures for imported foods and fishery products. About 64 cents out of each dollar was spent at retail foodstores on food for use at home. Another 30 cents was spent on purchases of food from public eating places. The remaining 6 cents represented the retail value of foods served by hospitals, schools, airlines, and other institutions. These market shares were unchanged from 1984.

Consumer expenditures for farm foods rose 3.5 percent above the 1984 level, a smaller rise than in other recent years. The increase in spending came largely from higher food prices although prices rose less than in 1984. A rise of about 1 percent in population accounted for some of the increase in value of food purchased. Spending for food in public eating places rose at a greater rate than spending in foodstores, mainly because of the much larger price increase for restaurant meals than for foods sold in foodstores.

Figure 4

Marketing Bill, Farm Value, and Consumer Expenditures to Farm Foods



Data for domestically produced farm foods purchased by civilian consumers for consumption both at home and away from home.

Table 15--Consumer expenditures for domestically produced farm foods, the estimated marketing bill, and farm value

Item and year	Total	For food at food-stores 1/	Eating away from home		
			Total	Public eating places 2/	Institutions 3/
	Billion dollars				
Consumer expenditures:					
1975	167.0	116.2	50.8	40.5	10.3
1976	183.3	127.2	56.1	45.5	10.6
1977	190.9	130.8	60.1	48.6	11.5
1978	216.9	149.2	67.7	55.5	12.1
1979	245.2	169.4	75.8	62.2	13.6
1980	264.4	180.1	84.3	69.1	15.2
1981	287.7	194.0	93.7	76.8	16.9
1982	298.9	196.7	102.2	84.2	18.0
1983	315.0	204.6	110.4	91.8	18.6
1984	332.0	213.1	118.9	99.1	19.8
1985 4/	343.6	219.4	124.2	103.6	20.6
Marketing bill:					
1975	111.4	72.2	39.2	31.3	7.9
1976	125.0	79.4	45.6	37.2	8.4
1977	132.7	83.5	49.2	40.0	9.2
1978	147.4	93.9	53.6	44.3	9.3
1979	166.1	104.9	61.2	50.7	10.5
1980	182.7	113.9	68.8	56.9	11.9
1981	204.5	127.0	77.5	64.1	13.4
1982	215.2	129.9	85.3	70.9	14.4
1983	229.3	136.5	92.8	77.9	14.9
1984	240.6	140.0	100.6	84.7	15.9
1985 4/	257.2	150.4	106.8	89.9	16.9
Farm value:					
1975	55.6	44.0	11.6	9.2	2.4
1976	58.3	47.8	10.5	8.3	2.2
1977	58.2	47.3	10.9	8.6	2.3
1978	69.5	56.4	13.1	10.3	2.8
1979	79.2	64.5	14.7	11.6	3.1
1980	81.7	66.2	15.5	12.3	3.1
1981	83.2	67.0	16.2	12.7	3.5
1982	83.7	66.8	16.9	13.2	3.6
1983	85.7	68.1	17.6	13.9	3.7
1984	91.4	73.1	18.3	14.4	3.9
1985 4/	86.4	69.0	17.4	13.7	3.7

1/ Includes food primarily purchased at retail foodstores for use at home. 2/ Includes food purchased at restaurants, cafeterias, snackbars, and other public eating establishments. 3/ Includes the value of food served in hospitals, schools, colleges, rest homes, and other institutions. 4/ Preliminary. Some historical data have been revised.

Meat products represent the largest share of total retail food expenditures. Retail value of meat in 1984 (the latest available data) was 29 percent of total expenditures, compared with 21 percent for fruit and vegetables, the next largest expenditure group (table 16). Because the consumption of foods changes slowly, there has been little change in the proportion of expenditures accounted for by meat products and other food groups from year to year.

Farm Value Declines

Farmers received about $86 billion in 1985 for the farm products equivalent to the foods purchased by consumers or eaten by them in hospitals and other institutions. Farm value decreased about $5 billion in 1985, which nearly offset an increase in 1984. Lower prices for cattle, hogs, poultry, and eggs accounted for much of the decline in total farm value. With the decline, 1985 farm value was only 6 percent higher than in 1980, whereas consumer spending was 30 percent higher.

The largest share of the money received by farmers for domestic food sales pays for meat products. In 1984, the latest year for which we have data, the farm value of meat was about 35 percent of the total. The next largest share, 20 percent, paid for dairy products. While livestock and dairy producers thus garnered over half the farm value, it is important to remember that they bought substantial amounts of grain from crop farmers.

The farm value of food products represented 25 percent of consumer expenditures for farm foods in 1985, 2 percentage points less than in 1984. The farm value is a much smaller part of expenditures for foods eaten away from home than for foods bought at stores because the cost of preparing and serving foods is a huge part of the cost of food eaten out. In 1985 farm value accounted for about 14 percent of away-from-home expenditures, compared with about 31 percent of expenditures for farm foods in foodstores.

Food Spending Increases More Slowly than Income

Although food expenditures have risen, food spending has declined as a percentage of personal income over the past decade. A declining proportion of income required for food leaves more money for purchases of other things and for savings.

In 1985, Americans spent about 15 percent of total disposable income on food, based upon data reported by the Department of Commerce. This share compares with 15.8 percent in 1980 and 16.5 percent 10 years ago. Moderate inflation coupled with increases in disposable personal income reduced the share of income spent on food in most years during the past decade. Some of this decline in the proportion of income spent for food can be attributed to a decline in the farm value component. Farm value of the foods produced on U.S. farms declined from about 5 percent of consumer disposable income 10 years ago to about 3 percent last year. The proportion of income spent on food varies widely by income levels. Based on 1982 data, the latest available from a consumer expenditure survey by the Department of Labor, consumers with incomes between $5,000 and $10,000 spend an average of 28 percent of their income for food whereas consumers with incomes between $30,000 and $40,000 spend an average of 11.5 percent.

Marketing Bill Boosted Food Spending

The marketing bill, the difference between what consumers spent for food and the farm value, amounted to $257 billion in 1985, about $16.5 billion more than in 1984. Of last year's increase in the marketing bill, consumers paid about $11.5 billion in higher expenditures and producers received $5 billion less for food commodities mainly due to lower prices.

Table 16--Consumer expenditures, marketing bill, and farm value for major food groups

Item	1980	1981	1982	1983	1984
			Billion dollars		
Consumer expenditures:					
Meat	81.3	86.1	88.8	94.2	97.0
Fruits and vegetables	53.7	60.4	63.8	66.5	70.2
Dairy products	37.8	41.4	42.0	45.0	47.9
Bakery products	26.8	29.0	30.6	31.0	33.1
Poultry	13.3	14.7	15.1	16.3	18.4
Grain mill products	8.4	8.9	9.0	9.6	10.0
Eggs	5.0	5.2	5.2	5.4	6.0
Other foods	38.1	42.1	44.7	47.0	49.4
Total	264.4	287.7	298.9	315.0	332.0
Marketing bill:					
Meat	50.5	54.9	57.3	62.8	64.6
Fruits and vegetables	42.1	47.0	50.0	53.2	55.1
Dairy products	21.8	24.4	25.3	27.0	29.8
Bakery products	23.3	25.6	27.2	27.5	29.4
Poultry	7.5	8.6	9.1	9.7	10.4
Grain mill products	6.8	7.3	7.6	8.2	8.6
Eggs	2.5	2.5	2.7	2.7	3.0
Other foods	28.3	34.0	36.4	38.2	39.7
Total	182.7	204.5	215.2	229.3	240.6
Farm value:					
Meat	30.8	31.1	31.5	31.4	32.4
Fruits and vegetables	11.7	13.3	13.8	13.3	15.1
Dairy products	16.0	17.0	16.7	18.0	18.1
Bakery products	3.5	3.4	3.4	3.5	3.7
Poultry	5.9	6.1	6.0	6.6	8.0
Grain mill products	1.6	1.5	1.4	1.4	1.4
Eggs	2.5	2.7	2.5	2.7	3.0
Other foods	9.8	8.1	8.2	8.8	9.7
Total	81.7	83.2	83.7	85.7	91.4

Higher labor costs accounted for slightly less than half of last year's increase in the marketing bill. Much of the remaining increase in the bill occurred in food packaging costs, corporate profits, and in the category of other costs including such items as advertising and promotion, taxes and insurance, and professional services.

The increase of 6.9 percent in the marketing bill in 1985 was greater than the rise in prices of most inputs and the general inflation rate. This was because of increases in the volume of food marketed and inputs used, particularly labor and additional advertising and promotion.

Although the rise has slowed during the past several years, marketing costs continue to be the most persistent source of rising food expenditures. Retail expenditures for domestic farm foods have increased about $79 billion since 1980. About $74 billion of this increase consists of charges for marketing products after they leave the farm. Farm value has increased only $5 billion since 1980.

What the Marketing Bill Bought

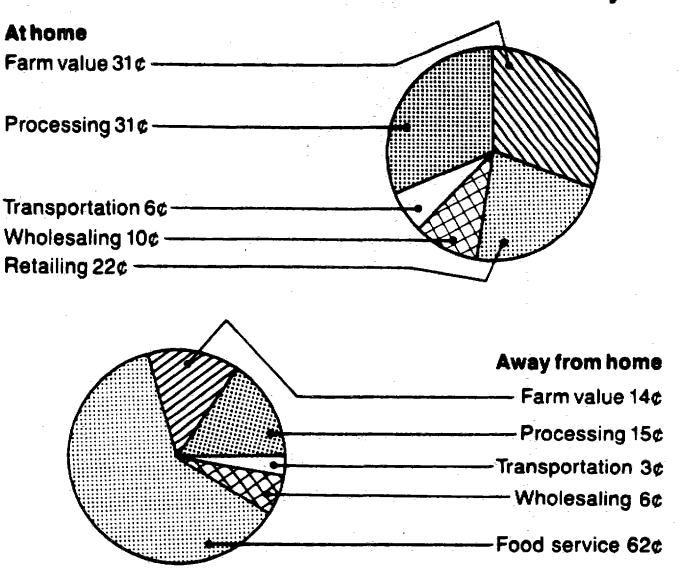
To get a clearer idea of what is represented by last year's marketing bill, it is helpful to look first at four broad functions that the food industry performs--processing, wholesaling, transporting, and retailing--and then at the specific cost items that add up to the marketing bill.

Costs of the functions performed are different for foods bought in foodstores than for away-from-home purchases of restaurant meals and snacks. For 1985, about 31 cents of each dollar spent in foodstores paid for the farm value. Thus, 69 cents paid the marketing bill.

Looking at the bill for each dollar's worth of food bought in foodstores by function, 31 cents paid for processing. Between processor and retailer, another 10 cents was spent for wholesaling and 6 cents for intercity

Figure 5

Where the Food Dollar Goes at Home and Away



1985 data.

transportation. Finally, retailing charges added the last 22 cents (fig. 5 and table 17). These shares have been relatively constant over the years because costs of each function have risen at roughly similar rates.

For dollars spent for food away from home, 14 cents covered the farm value. Processing costs accounted for 15 cents, transportation charges for 3 cents, and wholesaling for 6 cents. Thus, 62 cents was paid for food service which is the preparation and serving of food eaten out.

The food processing and marketing industry is an important part of the American economy. The $257 billion the industry received from consumers in 1985 was in turn spent to pay the wages and salaries of millions of employees and to pay for all of the other costs of doing business.

Labor, the Largest Cost

Direct labor costs are the largest part of the marketing bill. They amounted to nearly $117 billion in 1985, 34 percent of food expenditure (fig. 6 and table 18). Labor costs consist of wages, salaries, and employee health and welfare benefits, imputed earnings of proprietors and family workers, and tips for food service. Not included are the costs of labor engaged in for-hire transporting of foods or in manufacturing and distributing supplies used by food industries.

Table 17--Marketing function components of consumer expenditures

Expenditures and components	1980	1981	1982	1983	1984	1985 1/
			Billion dollars			
Expenditures at foodstores	180.1	194.0	196.7	204.6	213.1	219.4
Farm value	66.2	67.0	66.8	68.1	73.1	69.0
Marketing bill	113.9	127.0	129.9	136.5	140.4	150.4
Processing cost	53.8	58.9	59.5	60.9	61.9	67.3
Intercity transportation cost	10.5	11.3	11.6	12.3	12.8	13.7
Wholesaling cost	15.7	18.1	18.7	20.0	20.8	21.7
Retailing cost	33.9	38.7	40.1	43.3	44.5	47.7
Expenditures for eating away from home	84.3	93.7	102.2	110.4	118.9	124.2
Farm value	15.5	16.2	16.9	17.6	18.3	17.4
Marketing bill	68.8	77.5	85.3	92.8	100.6	106.8
Processing cost	12.7	15.3	16.5	18.2	18.3	18.7
Intercity transportation cost	2.2	2.7	2.8	3.1	3.4	3.8
Wholesaling cost	4.6	5.2	5.8	6.6	7.2	7.4
Food service cost	49.3	54.3	60.2	64.9	71.7	76.9

1/ Preliminary. Some historical data have been revised.

Labor costs rose 7 percent in 1985, due mainly to a substantial rise in employment and higher management compensation. Food retailing employment climbed about 6 percent reflecting the rapid growth of service departments, such as bakeries, in supermarkets. Employment rose about 4 percent in eating places and over 2 percent in the food manufacturing industry. The total number of persons employed in the food industry rose about 4.6 percent in 1985, the largest 1-year increase in many years.

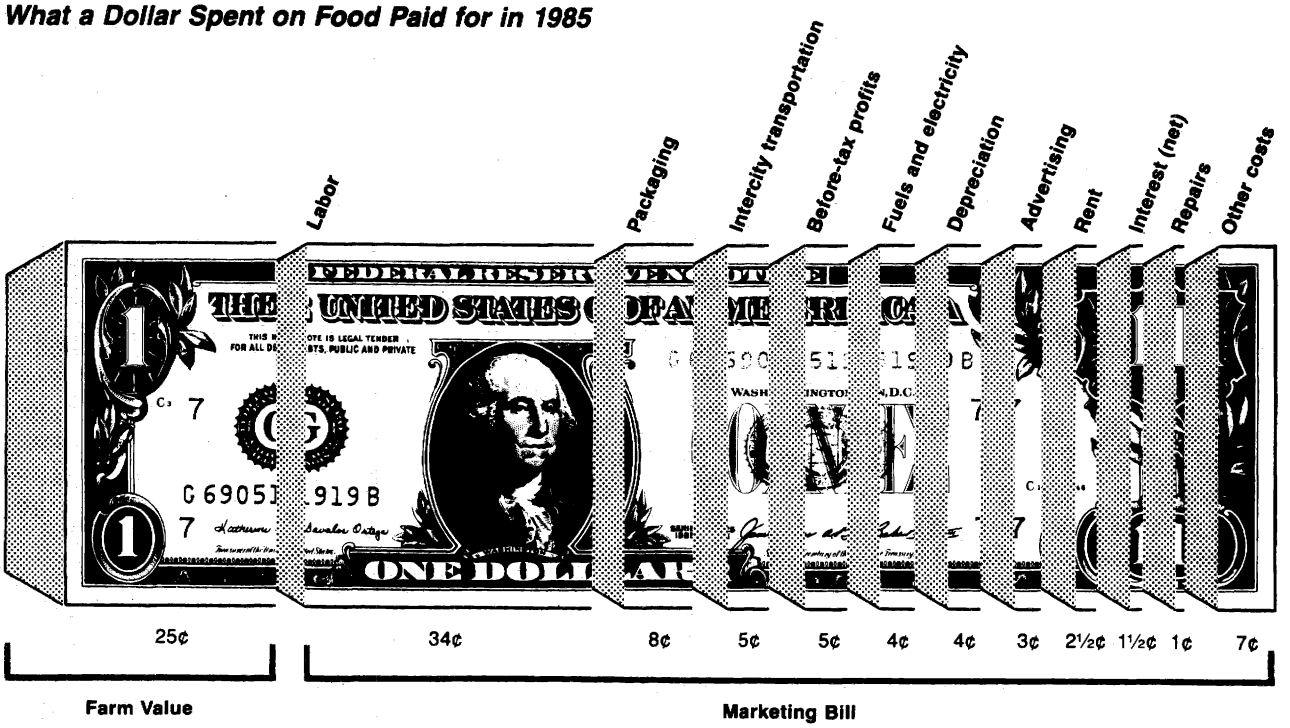
About 11 million workers were employed in food processing and distributing in 1985. Nearly 5.7 million were employed in away-from-home eating places. Foodstores employed 2.8 million persons, while food processors employed 1.6 million, and food wholesalers about 0.7 million workers.

Over the years, the costs for employee benefits, such as health insurance, private pensions, and payroll taxes for Social Security and unemployment compensation, have increased more rapidly than hourly earnings. For last year, these costs rose an estimated 4 percent, whereas average hourly earnings of production and nonsupervisory workers went up less than 1 percent. Benefits slightly increased as a proportion of total labor costs, continuing a long-term trend.

The gain in the importance of benefits was caused in part by higher costs of private pension and insurance plans, and legally mandated hikes in payroll taxes for Social Security and unemployment compensation. In 1985, the employer's portion of the Social Security tax rose from 7.0 percent to 7.05 percent of earnings, and the maximum taxable annual earnings increased from $37,800 to $39,600.

Figure 6

What a Dollar Spent on Food Paid for in 1985



Includes food at home and away from home. Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts, and many miscellaneous items.

Table 18--Components of the marketing bill for domestically produced farm foods

Year	Labor 1/	Packaging materials	Intercity rail and truck transportation	Fuels and electricity	Corporate profits before taxes	Other 2/	Total marketing bill 3/
				Billion dollars			
1967	25.9	7.3	4.3	--	3.4	21.5	62.4
1968	28.0	7.6	4.5	--	3.6	22.2	65.9
1969	30.4	7.9	4.6	--	3.6	21.8	68.3
1970	32.2	8.2	5.2	2.2	3.6	23.7	75.1
1971	34.5	8.5	6.0	2.4	3.9	23.2	78.5
1972	36.6	8.9	6.1	2.5	4.0	24.3	82.4
1973	39.7	9.4	6.4	2.8	5.4	23.4	87.1
1974	44.3	11.8	7.5	3.7	6.1	24.8	98.2
1975	48.3	13.3	8.4	4.6	7.1	29.7	111.4
1976	53.8	14.5	9.1	5.0	7.6	35.0	125.0
1977	58.3	15.1	9.7	6.0	7.9	35.7	132.7
1978	66.2	16.6	10.5	7.1	9.2	37.8	147.4
1979	75.2	18.6	11.8	8.2	9.9	42.5	166.2
1980	81.5	21.0	13.0	9.4	10.9	46.9	182.7
1981	91.0	22.8	14.3	10.3	12.0	54.1	204.5
1982	96.6	23.2	14.7	11.3	13.0	56.4	215.2
1983	102.4	24.3	15.4	12.0	14.7	60.5	229.3
1984	109.1	26.3	15.9	12.7	15.9	60.7	240.6
1985	116.8	27.1	16.3	13.3	17.0	66.7	257.2

-- = Not available.

1/ Includes employee wages or salaries and their health and welfare benefits. Also includes imputed earnings of proprietors, partners, and family workers not receiving stated remuneration. 2/ Includes depreciation, rent, advertising and promotion, interest, property taxes and insurance, accounting and professional services, and many miscellaneous items. 1967-69 data also include fuels and electricity. 3/ The marketing bill is the difference between the farm value or payment to farmers for foodstuffs and consumer expenditures for these foods both at foodstores and away-from-home eating places. Thus, it covers processing, wholesaling, transportation, and retailing costs and profits. Some historical data were revised.

Packaging Costs Up

Food containers and packaging materials, the second largest food marketing cost, totaled about $27 billion in 1985, 8 percent of total food expenditures. Costs rose 3 percent over 1984, mainly reflecting larger outlays for paperboard boxes and containers, glass containers, and plastic materials.

Paperboard boxes and containers are the largest packaging cost. The food industry spent about $11 billion or about two-fifths of total packaging expenses on paper and paperboard products in 1985. Fiber (cardboard) boxes, the primary container used to ship nearly all processed foods, represented about one-third of this total. Sanitary food containers, including those for such products as fluid milk, margarine and butter, ice cream, and frozen food, cost almost as much. The third largest paperboard item was folding boxes used for such dry foods as cereals and perishable bakery products.

Metal containers are next in importance, making up about a fourth of total food packaging costs. Cans have probably become less important in packaging as more glass and plastic bottles and fiber containers are used.

Costs of plastic containers and wrapping materials are nearly 15 percent of food packaging costs. Plastic is an important source of trays for meat and produce, bottles for milk and fruit juices, jars and tubs for cottage cheese and other dairy products, and flexible wrapping materials, such as polyethylene film, for protective covering of baked goods, meats, and produce.

Transportation Costs Advance

Intercity truck and rail transportation costs for farm foods advanced about 2.5 percent to $16.3 billion in 1985. This was about 5 percent of retail food expenditures. Slightly higher freight rates combined with larger total food marketings boosted costs.

Railroad freight rates rose by about 1 percent in 1985, following a 4.4-percent rise in 1984. The smaller rise was the result of relatively stable costs.

Average truck rates for shipping food products increased very little, if any. Operating truck costs, however, rose about 1 percent which could have boosted overall rates for food shipments.

Energy Cost Rise Slows

Fuel and electricity costs in the food industry rose at more than 1.5 times the annual rate of other costs from the beginning of the sharp rise in energy prices in 1973 to 1981. Rising about 20 percent a year, energy costs increased from 2 percent of retail food expenditures to 4 percent. However, the rise in costs has slowed the past 4 years as petroleum prices have declined. Last year's energy bill came to $13.3 billion. Costs rose about 5 percent in 1985 due to the expanded size of the food industry and higher electricity rates.

This energy bill counted only the costs of electricity, natural gas, and other fuels used in food processing, wholesaling, and retailing, including food service at eating places. It excluded transportation fuel costs, except for those incurred for food wholesaling.

Over one-third of the fuel and electricity costs of food marketing are incurred by public eating places and other food service facilities. These energy expenses have risen more rapidly the past decade than for other food marketing functions because of the relatively large growth of the food-away-from-home market. Also, away-from-home food service has the highest energy costs per dollar of sales, averaging about 3.8 percent.

Food retailing and processing each account for about 25 percent of food marketing fuel and electricity costs. Energy costs have risen in relation to other retailing costs, increasing from about 1 percent of foodstore sales in 1976 to about 1.3 percent last year. The major portion of the food retailing energy bill is electricity used to operate refrigeration equipment.

Other Costs Added Up

The major costs just discussed together accounted for 66 percent of the 1985 food marketing bill. The rest of the bill included a variety of other costs (26 percent of the total) and profits (7 percent).

Many relatively small costs were incurred in performing food processing and marketing functions. Although most such costs were small individually, they added up to $67 billion. These costs included depreciation, rent, advertising and promotion, repairs, bad debts, contributions, property taxes and insurance, interest, and many others. They are estimated using data from trade publications, the Internal Revenue Service, and the Bureau of the Census. Here's a rundown for 1985:

- Plant and equipment rent and depreciation (6.5 percent of total consumer expenditures).
- Media--television, radio, and newspaper--advertising expenditures (about 3 percent of food expenditures).
- Net interest (about 1.5 percent of expenditures).

Sufficient data are not available for estimating many individual relatively small costs such as property taxes and insurance, for-hire local truck transportation, professional services, and communications. Together, these costs account for about 7 percent of the food dollar.

Corporate Profits Rise

Before-tax profits earned by firms from marketing foods were estimated at $17 billion for 1985, compared with $16 billion in 1984. The estimate was made by multiplying sales times ratios of profits per dollar of sales for food retailers, wholesalers, manufacturers, and public eating places. Profits of the food industry last year were 5 percent of food spending, about the same as in recent years.

FOOD PRICE HIGHLIGHTS

Higher prices for fresh fruits and highly processed foods, such as bakery and cereal products, were the major cause of the rise in retail food prices in 1985. Farm value declined for most foods mainly because of larger production of most commodities last year. There was a further increase in the farm-to-retail price spread for most foods.

Choice Beef

Beef prices increased sharply from 1978 to 1980, then remained quite stable until 1985 when prices dropped (table 19). The 1985 weighted average price of Choice beef was $2.33 per pound, 7 cents lower than in 1984 and 10 cents lower than the all-time high in 1982. The 1985 price also was 5 cents lower than in 1980. Prices varied during 1985 from a high of $2.40 per pound in January to a low of $2.24 in September. Prices of individual cuts ranged from about $1.20 per pound for ground beef to over $4 per pound for porterhouse steak.

The farm value, representing the payment to the producer for the quantity of live animal equivalent to a pound of meat sold at retail, decreased about twice as much as the retail price (13 cents) from 1984 to 1985. The farm value averaged only 55 percent of the retail price of beef in 1985, the lowest yearly average ever recorded.

The farm value is computed from the average of terminal and direct market prices for Choice steers, yield grade 3, in eight markets. Computing the farm value takes two steps. Prices per pound of slaughter steers are multiplied by 2.4 pounds, the quantity of live animal required to sell 1 pound of Choice beef at retail. Then, we estimate the value of byproducts, principally the hide, obtained from the slaughtered animal. We subtract this byproduct value to obtain the farm value of the meat alone.

The farm-to-retail price spread for Choice beef last year was up 6 cents from 1984, averaging $1.06 a pound, which was the highest ever recorded. During the year, the spread varied from a low of 92 cents in November to a high of $1.17 in July. The variation in the spread came about because changes in retail beef prices were both smaller and lagged very large movements in the farm value during the year. The price spread for beef was relatively stable between 1981 and 1984 and did not keep pace with inflation. Thus, the 6-percent increase in the spread in 1985 was really an increase from 1981.

Costs of the processing and marketing functions were higher than in 1984. The estimated returns for the slaughtering function, which declined in 1984, increased last year (table 20). This return included the functions performed from the time the packer purchased the cattle until the carcasses were shipped from the packing plant.

Many packers cut beef carcasses into primals, subprimals, and retail cuts, but the estimated return for slaughtering assumes that the beef is sold in carcass form. The slaughtering value is obtained by deducting the farm value and estimated transportation costs for the carcass (from the packer to the city where consumed) from an average wholesale value of Choice steer carcasses (600 to 700 pounds, yield grade 3). Thus, the estimate is derived from price differences and not a compilation of costs. The decline in the slaughtering value in 1984 as well as the lower value in 1985 relative to 1983 may reflect the downward pressure on wages in the industry in recent years.

Transportation of beef from the packer to the retail marketing area amounted to 3.9 cents per retail pound in 1985. Warehousing and store delivery were estimated at 15 cents. This estimate is based on data reported in the 1982 Census of Wholesale Trade, which indicated that these costs represented 8.3 percent of gross sales of meat wholesalers.

Costs of breaking the carcass into principal parts such as the loin and chuck, which could be done at the packing plant, at the wholesale level, or by the retailer, were estimated at 12 cents in 1985. Cutting and retail merchandising costs of Choice beef amounted to 70 cents in 1985. This amount represents the difference between the total of all other costs and the retail price.

Data for 1981-85 indicate a slight upward trend in the costs of breaking the carcass and of cutting and merchandising the beef but a decrease in slaughtering value. The increases are a reflection of inflation. The decrease in the slaughtering value may be related to the increasing shift to box beef and to a different allocation of returns between the cutting and slaughtering functions.

Table 19--Choice beef and pork: Retail price, farm value, and farm-to-retail price spread by year

Item	Retail price 1/	Net carcass value 2/	Net farm value 3/	Farm-to-retail spread			Farm value share 6/
				Total	Carcass-retail 4/	Farm-carcass 5/	
	Cents per retail pound						Percent
Choice beef:							
1980	237.6	155.4	145.0	92.6	82.2	10.4	61
1981	238.7	149.3	138.5	100.2	89.4	10.8	58
1982	242.5	150.7	140.5	102.0	91.8	10.2	58
1983	238.1	145.4	136.2	101.9	92.7	9.2	57
1984	239.6	147.6	140.0	99.6	92.0	7.6	58
1985	232.6	135.2	126.8	105.8	97.4	8.4	55
Pork:							
1980	139.4	98.0	63.2	76.2	41.4	34.8	45
1981	152.4	106.7	70.3	82.1	45.7	36.4	46
1982	175.4	121.8	88.0	87.4	53.6	33.8	50
1983	169.8	108.9	76.5	93.3	60.9	32.4	45
1984	162.0	110.1	77.4	84.6	51.9	32.7	48
1985	162.0	101.1	71.4	90.6	60.9	29.7	44

1/ Composite of all cuts. 2/ For quantity equivalent to 1 retail pound: beef, 1.48 pounds of carcass beef; pork, 1.06 pounds of wholesale cuts. 3/ For quantity of live animal equivalent to 1 retail pound: beef, 2.4 pounds, and pork, 1.7 pounds, minus byproduct allowance. 4/ Includes retailing, meat fabricating, wholesaling, and intracity transportation. 5/ Charges for livestock processing and transporting of meat to city where consumed. 6/ Percentage of retail price.

Changes in the quality, supply and demand, and price reporting of carcass beef also may be affecting the carcass price series used in deriving the slaughtering value estimate.

Pork

Retail pork prices averaged $1.62 in 1985, the same as in 1984. However, large total meat supplies created downward pressure on farm prices for market hogs.

The farm value decreased 6 cents to 71.4 cents per retail pound equivalent in 1985. The farm value decline coupled with the stable retail price caused the farm value share to drop from 48 percent of the retail price of pork in 1984 to 44 percent in 1985.

Farm value is computed from the average price of barrows and gilts at seven midwestern markets. This price is then multiplied by 1.7 pounds, the quantity of live animal needed to sell 1 pound of pork at retail. A value for lard and other byproducts is subtracted to obtain the net farm value.

Table 20--Choice beef and pork: Farm value, marketing costs by function, and retail price

Item	1981	1982	1983	1984	1985
			Cents per retail pound		
Beef:					
Farm value	138.5	140.5	136.2	140.0	126.8
Slaughtering	7.0	6.8	5.4	3.8	4.5
Intercity transportation	3.8	3.8	3.8	3.8	3.9
Warehousing and store delivery	15.5	16.0	15.7	15.8	15.3
Breaking carcass	10.4	11.0	11.4	11.8	12.3
Cutting and merchandising	63.5	64.8	65.6	64.4	69.8
Retail price	238.7	242.5	238.1	239.6	232.6
Pork:					
Farm value	70.3	88.0	76.5	77.4	71.4
Slaughtering and processing	32.9	30.3	28.9	29.1	26.1
Intercity transportation	3.5	3.5	3.5	3.6	3.6
Warehousing and store delivery	9.9	11.6	11.2	10.7	10.7
Cutting and merchandising	35.8	42.0	49.7	41.2	50.2
Retail price	152.4	175.4	169.8	162.0	162.0

The farm-to-retail price spread for pork rose 6 cents to 90.6 cents per pound. This increase followed a large decrease in the spread in 1984 when retail prices sharply declined. Last year, the spread was slightly lower than its record-high level in 1983.

Among the cost components of the farm-to-retail spread for pork, slaughtering and processing functions amounted to 26 cents in 1985, 3 cents less than in 1984 (see table 20). Those costs include cutting the carcass into primals and processing hams, bacon, and other products. We estimated this cost by deducting the farm value and intercity transportation costs from a composite wholesale price of pork.

Transportation costs for pork between the packer and retail marketing area were 3.6 cents per pound in 1985, unchanged from the previous year. Warehousing and store delivery costs were estimated at about 11 cents per retail pound in 1985.

Cutting and retail merchandising costs of about 50 cents made up the largest component of the farm-to-retail price spread for pork. This was 9 cents higher than in 1984 when this value declined about 8 cents. The retail cutting and merchandising component is derived as a residual between the total of all other functions and the retail price. The variability in this cost may be partly explained by the time lag between changes in farm, wholesale, and retail prices.

Broilers

Broiler prices decreased at both the farm and retail level. Retail prices declined 4.7 cents per pound from the high of 81 cents in 1984. The retail price dropped slightly more than the farm value which squeezed the processing spread (tables 21 and 22).

Costs of broiler production remained below returns received. Output exceeded all previous years. Per capita consumption of young chickens reached a new high of about 55 pounds in 1985, 2.5 pounds more than in 1984. Broiler consumption has gone up an average of 1.5 to 2 pounds per year during the past decade, whereas red meat consumption has leveled off. With the increase in consumption of broilers as well as turkeys, total poultry consumption moved up in 1985 to 33 percent of all meat consumed in the United States. That compares with 1975 when poultry consumption accounted for 25 percent of total meat intake.

While broiler prices declined in 1985, they were higher than other recent years even though supplies were much larger, reflecting relatively strong demand. Broiler producers are cutting up chicken into parts, and most are further processing chicken into fillets, nuggets, and other value-added products. Much of this further processing is done to the buyers' specifications. The processor generally realizes a more favorable margin and increased volume as well. While most of these products are served through fast-food and institutional outlets, considerable volumes are sold through retail stores for home consumption. These further processed products are not included in farm-to-retail price spread computations but represent increased demand. As a result, they kept prices from dropping as supplies rose.

Eggs

Monthly egg prices went down during most of 1984 and then went up during 1985. However, farm and retail prices averaged much lower in 1985 because prices at year end were much lower than prices in early 1984. Retail prices averaged 80 cents per dozen, 20 cents less than in 1984. Farm value of eggs declined about 14 cents and the price spread, therefore, narrowed. Returns to egg producers were unfavorable during the first half of 1985 but became positive during the last half of the year.

Table 21--Broilers and eggs: Farm value, marketing costs by function, and retail price

Item	Farm value	Marketing functions: Assembly and procurement	Processing	Intercity transportation	Wholesaling	Retailing	Retail price
			Cents				
Broilers, ready-to-cook, whole (pound):							
1975	37.0	1.4	7.5	1.4	3.9	12.0	63.2
1976	32.6	1.1	7.8	1.3	3.7	13.2	59.7
1977	33.0	1.1	8.0	1.4	3.7	12.9	60.1
1978	37.2	1.0	8.7	1.4	3.8	14.4	66.5
1979	35.7	1.3	9.6	1.6	4.2	15.6	68.0
1980	38.8	1.4	9.8	1.7	4.3	16.0	72.0
1981	37.6	1.6	10.3	1.7	4.3	18.2	73.7
1982	35.9	1.6	10.4	1.7	4.3	17.7	71.6
1983	38.0	1.6	10.5	1.7	4.3	16.7	72.8
1984	43.9	1.6	10.8	1.7	4.4	19.0	81.0
1985	40.2	1.6	9.3	1.7	4.4	19.1	76.3
Eggs, Grade A large (dozen):							
1975	50.8	1.2	9.3	1.5	3.7	10.5	77.0
1976	58.0	.9	9.6	1.4	3.5	11.5	84.9
1977	53.8	.9	10.3	1.5	3.5	12.3	82.3
1978	49.7	.9	10.5	1.6	3.4	12.4	78.5
1979	53.7	1.1	11.7	1.8	3.9	13.7	85.9
1980	51.0	1.2	12.4	1.9	4.1	13.8	84.4
1981	56.1	1.2	12.2	1.9	4.1	15.1	90.6
1982	53.1	1.2	12.2	1.9	4.1	16.0	88.5
1983	58.5	.8	11.6	1.7	3.5	16.0	92.1
1984	65.7	1.0	12.1	1.5	3.7	16.5	100.5
1985	52.0	1.0	11.0	1.5	3.7	11.2	80.4

Table 22--Broilers and eggs: Cost components of marketing functions, 1985

Item	Farm value 1/	Marketing function: Assembly	Processing	Hauling and distributing 2/	Retailing	Retail price
		Cents				
Broilers (per pound):						
Labor	--	0.8	4.0	2.8	--	--
Packaging	--	--	2.1	.2	--	--
Transportation 3/	--	--	--	--	--	--
Business taxes	--	--	.2	.2	--	--
Depreciation	--	.2	.5	.4	--	--
Rent	--	--	4/	.1	--	--
Repairs	--	--	.3	.2	--	--
Advertising	--	--	.3	--	--	--
Interest	--	.1	.3	.2	--	--
Energy	--	.5	.8	1.5	--	--
Other	--	--	.5	.3	--	--
Profit	--	--	.3	.2	--	--
Total	40.2	1.6	9.3	6.1	19.1	76.3
Eggs (per dozen):						
Labor	--	.4	3.1	2.3	--	--
Packaging	--	--	5.1	.2	--	--
Transportation 5/	--	--	--	--	--	
Business taxes		--	.4	.2	--	--
Depreciation	--	.1	.5	.3	--	--
Rent	--	--	4/	.1	--	--
Repairs	--	--	.3	.2	--	--
Advertising	--	--	.3	--	--	--
Interest	--	.1	.3	.2	--	--
Energy	--	.4	.6	1.2	--	--
Other	--	--	.2	.2	--	--
Profit		--	.2	.3	--	--
Total	52.0	1.0	11.0	5.2	11.2	80.4

-- = Not estimated.

1/ Farm value for eggs includes allowance for 3-percent loss during marketing. Livestock broilers converted to retail equivalent. 2/ Includes long-distance transportation plus wholesaling and local delivery. 3/ Includes 1 cent for assembly, 1.7 cents for long-distance transportation, and 2.1 cents for local delivery, allocated to other components (such as labor and energy). 4/ Included in depreciation. 5/ Includes 0.8 cent for assembly, 1.7 cents for long-distance transportation, and 2.4 cents for local delivery, allocated to other components (such as labor and energy).

From 1984 to 1985, the price spread decreased about 6 cents per dozen. The 1985 spread of 28.4 cents was lower than it had been since 1976, although 1977 and 1978 were near the same level. Most of the decline was in the retailing function. The retail practice of using low egg prices to draw customers into a store may be a contributing factor to the decline in the retail spread. The 5-cent decrease in the retailing function return followed a small increase the previous year.

Fluid Milk

Retail milk prices have been essentially stable since early 1981. In 1985, prices declined slightly during the year but the retail price for a half-gallon of whole milk sold in stores averaged $1.13, up 0.7 cent from a year earlier (table 23).

Processors paid 60.9 cents per half-gallon for raw milk last year, down 1.7 cents from 1984. This decline resulted from reductions in the support price for milk in April and July of 1985. Procurement and assembly charges were 4.8 cents, 0.4 cent higher than a year earlier. The rise reflected higher payments to cooperatives for marketing services.

The farm value of 56.1 cents was 2 cents lower than in 1984. The lower farm value in 1985 pushed the farmer's share of the consumer's milk dollar below 50 cents, which was about 2 cents lower than in 1984 and 7 cents lower than the 1976 peak.

Processing and wholesaling typically are performed by the same firm. The combined processing and wholesaling margin in 1984 (the latest available data) was 33.3 cents per half-gallon. The processor-distributor took 30 percent of the retail price in 1984, the least since 1976. The retailing margin was 16.8 cents per half-gallon in 1984, which represented 15 percent of the retail price, up from less than 10 percent in 1980.

Fruits and Vegetables

Retail prices of fresh fruit rose about 11 percent last year reflecting small supplies of oranges and many other fruits. However, the farm value dropped by 4 percent while the farm-to-retail spread went up about 17 percent (see table 4). The ratio of farm value to the retail price of fresh fruit averaged about 24 percent in 1985.

For fresh vegetables, retail prices averaged 4 percent lower in 1985 than in 1984, reflecting large supplies most of the year. The farm value fell about 14 percent, and the marketing spread for fresh vegetables was unchanged in 1985.

Retail prices of processed fruit and vegetables averaged 2.6 percent higher in 1985, reflecting tight supplies. The farm value went up 10 percent while the marketing spread rose only about 1 percent. Nearly 80 percent of the retail price of processed fruit and vegetables represents processing and distributing costs. Farm value was 22 percent, a slightly larger proportion than in other recent years.

Estimates of the charges for processing and marketing functions have been made for selected fruits and vegetables (fresh potatoes, lettuce, oranges, frozen orange juice concentrate, and canned tomatoes) to explain increases in price spreads, and, therefore, retail prices over the years (table 24).

Retailing accounts for the largest share of the marketing expense for the fresh produce items (potatoes, oranges, and lettuce). For oranges, retailing expense averaged 47 percent of the farm-to-retail spread for the 1981 to 1985 period. The retailing share averaged 62 percent for lettuce and 71 percent for potatoes. The fact that fresh produce sales per square foot of display space are below the average for the store and that retailers experience a certain percentage of spoiling loss with fresh produce contribute to the comparatively high retailing costs. The retailing margins for frozen concentrated orange juice and canned tomatoes by comparison averaged 38 and 18 percent, respectively, of the farm-to-retail price spread.

Table 23--Fluid whole milk: Farm value, marketing costs by function, and retail price per half-gallon

Year	Farm value 1/	Marketing functions				Retail price 5/
		Assembly and procurement 2/	Processing 3/	Wholesaling 3/	Retailing 4/	
		Cents				
1974	40.9	2.7	10.7	13.6	8.9	76.8
1975	41.2	2.8	11.4	13.6	7.9	76.9
1976	46.2	2.8	10.6	12.1	9.3	81.0
1977	45.1	2.9	13.2	12.6	8.3	82.1
1978	47.0	3.1	14.6	14.3	7.1	86.1
1979	52.2	3.8	15.1	16.6	8.3	96.0
1980	55.8	4.5	15.6	18.9	10.2	104.9
1981	59.5	4.7	16.0	19.1	12.4	111.7
1982	59.2	4.5	16.5	19.3	13.0	112.4
1983	59.5	4.3	15.8	17.5	15.7	112.8
1984	58.2	4.4	16.7	16.6	16.8	112.7
1985	56.1	4.8	--	--	--	113.4

-- = Not available.

1/ Prices received by farmers are normally quoted for 3.5-percent butterfat at plant of first receipt. This price has been adjusted for transportation from farm to first plant to get the farm price, then adjusted to get the value of milk containing 3.3-percent butterfat. There are approximately 23.2 half-gallons of milk per 100 pounds. 2/ Nonfarm costs of supplying milk to processors including laboratory and on farm field service to assure quality, pickup at farms, transportation, receiving and reloading as necessary, and management of raw milk reserves. 3/ Data for the processing and wholesaling functions represent costs for 30 fluid milk processor-distributors which are representative of moderate-size, single-plant operations throughout the country. Very small plants and plants operated by retail food chains are not included. 4/ May include some wholesaling formerly performed by processors. 5/ Average of Bureau of Labor Statistics monthly prices.

Table 24--Selected fruits and vegetables: Farm value, marketing costs by function, and retail price 1/

Food item and year	Farm value 1/	Marketing function: Packing or processing	Intercity transportation 2/	Wholesaling	Retailing	Retail price 3/
			Cents			
Potatoes, Northeast round white (10-lb. bag):						
1980	4/ 62.3	17.3	9.3	7.1	83.4	5/ 179.5
1981	4/ 48.3	30.2	16.1	12.4	145.2	5/ 252.2
1982	4/ 47.7	19.8	10.5	8.1	95.1	5/ 181.2
1983	4/ 55.7	15.5	8.3	6.4	74.4	5/ 160.2
1984	4/ 67.8	18.2	9.7	7.5	87.6	5/ 190.9
1985	4/ 37.0	18.2	9.7	7.5	87.8	5/ 160.3
Oranges, Calif. (pound):						
1980	5.0	9.0	4.8	3.4	13.8	36.0
1981	7.6	7.5	4.9	4.9	14.6	39.5
1982	17.1	4.0	5.2	5.5	15.8	47.6
1983	5.3	8.6	5.2	5.9	13.7	38.7
1984	17.2	5.8	5.4	4.9	16.6	49.9
1985	12.4	9.4	5.4	6.8	19.4	53.4
Iceberg lettuce, Calif. (pound):						
1980	6/ 4.5	7/ 5.6	5.3	4.9	25.4	45.7
1981	6/ 5.9	7/ 6.8	5.5	3.4	27.1	48.7
1982	6/ 7.4	7/ 7.5	5.7	5.2	30.4	56.2
1983	6/ 5.8	7/ 7.5	5.7	5.3	31.2	55.5
1984	6/ 4.0	7/ 7.5	5.7	4.4	28.8	50.4
1985	6/ 7.1	7/ 7.5	5.6	5.1	27.3	52.6
Orange juice, frozen (12-ounce can):						
1980	36.2	12.2	3.0	13.0	23.1	8/ 87.5
1981	41.0	23.3	3.3	12.4	22.0	8/ 102.0
1982	46.3	18.7	3.4	13.6	24.1	8/ 106.1
1983	44.0	20.1	3.5	13.3	23.5	8/ 104.4
1984	49.0	32.7	3.5	13.2	23.2	8/ 121.6
1985 9/	62.8	17.6	3.5	16.7	29.7	8/ 130.3
Tomatoes, Calif. (303 can):						
1980	5.0	22.7	4.4	1.9	8.2	42.2
1981	4.5	33.3	4.9	1.4	5.8	49.9
1982	4.9	37.2	5.0	1.5	6.4	55.0
1983	5.1	30.5	5.1	2.3	9.6	52.6
1984	4.9	29.6	5.2	2.4	10.4	52.5
1985	4.9	29.3	5.3	2.3	9.7	51.5

1/ Payment to farmers for the quantity of farm products equivalent to the unit sold at retail minus imputed value of byproduct. Computed from average prices received by growers. 2/ Costs are for truck shipment. 3/ Derived from Bureau of Labor Statistics' monthly U.S. average retail prices unless otherwise noted. Prices of fresh produce items were weighted by the quantities marketed. 4/ Prices include some packing costs since many growers may grade, wash, and bag the potatoes. 5/ Selected Eastern markets. 6/ Value in the field. 7/ Contract price for cutting, packing, hauling, cooling, and selling. 8/ Estimated by Florida Citrus Commission. 9/ Preliminary.

Lower farm value accounted for the decrease in the 1985 potato retail price, but an increase in farm value made up the increase in the lettuce retail price. The greatest share of the increase in the orange retail price was for retailing. Packing costs made up the second largest share of the marketing margin for the fresh produce items or about 17 percent of total market costs, followed by intercity transportation and wholesaling costs which account for another 12 and 11 percent, respectively, over the past 5 years.

Processing costs for canned tomatoes make up 65 percent of the farm-to-retail price spread. A principal component of the processing cost of 29 cents, is packaging--the metal can, the label, and the shipping case. Processing, wholesaling, and retailing costs declined slightly in 1985.

The retail price of a 12-ounce can of frozen concentrated orange juice increased 8 cents to $1.30 in 1985, partly reflecting the effects of freeze damage to the orange crop. The farmers' return increased. However, the processor share fell from 33 cents in 1984 to 18 cents in 1985. The reduced margin was due to large imports of frozen concentrated orange juice from Brazil that held wholesale prices down. The 5-year average costs for retailing and processing each made up about a third of the farm-to-retail price spread. In 1985, however, retailing made up 44 percent while processing and wholesaling costs made up a fourth each. Transportation costs account for about 5 percent of the spread. Packaging represents the largest cost of processing. Automated operations have minimized the labor cost of concentrating orange juice processing. Transportation and wholesaling costs remain fairly constant. Wholesaling costs remain high because the product must be kept frozen at all times to maintain quality.

Bread

The average retail price of white pan bread in 1985 was 55.3 cents per pound, 1 cent higher than in 1984 (table 25). This price is the average of monthly prices reported by the Bureau of Labor Statistics.

The farm value of wheat, at 4.1 cents, was 0.2 cent lower than in 1984. The farm value represents the payment to farmers for the quantity of wheat (approximately 0.86 pound) required to produce the flour for a 1-pound loaf of bread. The payment is computed from the average farm price for all wheat. A deduction is made for the value of millfeed which is a byproduct of milling the wheat. The value of the millfeed ranges from 15 to 20 percent of the value of the wheat, depending upon the flour milling extraction rate, the price of flour, and the price of millfeed.

Other farm-derived ingredients, including lard, soybean oil, high-fructose corn syrup, corn syrup, and soy-whey blend, contributed 0.7 cent to farm value for a total farm value of 4.8 cents. Farm value of other ingredients declined 0.1 cent in 1985 because of lower corn and soybean prices. Corn is the source of sweetener used in the bread, and soybeans are the main source of the shortening ingredient.

Sugar

Because of the stability provided by the price support program for sugar, retail sugar prices, together with the farm value and price spreads, changed very little in crop year 1984/85. The domestic raw sugar price, which is the

basis for pricing all domestic sugar, decreased about 1 cent per pound during crop year 1984/85. This slight decline resulted in lower grower prices for sugarcane and sugar beets and slightly lower retail sugar prices.

The 1984/85 farm value of a pound of sugar was 13 cents, down about 1 cent from a year earlier (table 26). The farm value is based on the season average prices received by growers in the United States for sugarcane and sugar beets. In 1984/85, the farm value accounted for 38 percent of the retail price of sugar, down 2 percentage points from the previous year.

The farm-to-retail price spread was 21 cents in 1984/85, unchanged from 1983/84. The processing and refining component of the spread amounted to about 16 cents, down 1 cent from the previous year. This spread is the difference between the farm value and an average quoted wholesale price for

Table 25--White bread: Retail price, farm value of ingredients, farm-to-retail price spread, and farm value share of retail price per 1-pound loaf

Year	Retail price	Farm value			Farm-to-retail price spread	Farm value share	
		Wheat 1/	Other farm ingredients 2/	All ingredients		Wheat	All ingredients
	Cents					Percent	
1970	27.7	2.6	0.8	3.4	24.3	9	12
1971	28.5	2.6	.9	3.5	25.0	9	12
1972	28.2	2.9	.9	3.8	24.4	10	13
1973	31.5	4.1	1.4	5.5	26.0	13	17
1974	39.3	5.4	2.5	7.9	31.4	14	20
1975	41.0	4.5	2.3	6.8	34.2	11	17
1976	40.2	3.8	1.7	5.5	34.7	9	14
1977	40.5	2.7	.7	3.4	37.1	7	8
1978	41.7	3.3	.7	4.0	37.7	8	10
1979	46.7	4.1	.8	4.9	41.8	9	10
1980	50.9	4.5	.8	5.3	45.6	9	10
1981	52.5	4.7	.8	5.5	47.0	9	10
1982	53.2	4.4	.6	5.0	48.2	8	9
1983	54.2	4.5	.7	5.2	49.0	8	9
1984	54.1	4.3	.8	5.1	49.0	8	9
1985	55.3	4.1	.7	4.8	50.5	7	9

1/ Payment to farmers for the quantity of wheat (approximately 0.86 pound) required to produce the flour for a 1-pound loaf of white bread, minus the value of millfeed byproducts. Based on average farm prices for hard winter and spring wheat in 11 States producing these wheats through 1982; all wheat prices used beginning in 1983. 2/ Value for lard, shortening, granulated sugar, and nonfat dry milk through 1976. Value for 1977 forward is for lard, soybean oil, high-fructose corn syrup, corn syrup, and soy-whey blend.

sugar packed in 5-pound bags, adjusted down for discounts and allowances to obtain an effective wholesale price. This spread covers all the functions of transporting sugarcane and sugar beets to processing plants, processing sugarcane and refining raw cane sugar, processing sugar beets, and selling sugar to buyers, including intercity transportation charges.

The wholesaling and retailing spread in 1984/85 was estimated to be about 5 cents per pound, up about 1 cent from the previous year. This spread is the difference between the average retail price and the adjusted average quoted wholesale price for sugar.

Table 26--Sugar: Farm value, price spreads, and retail price

Item	Crop year beginning October				
	1980/81	1981/82	1982/83	1983/84	1984/85
	Cents per pound				
Farm value 1/	17.3	12.2	13.8	14.3	13.4
Processing and refining spread 2/	18.4	14.8	16.9	16.8	15.9
Wholesaling and retailing spread 3/	7.9	5.7	4.2	4.2	5.5
Retail price 4/	43.6	32.7	34.9	35.3	34.8

1/ Based on season average prices received by continental U.S. sugar producers for sugarcane in Louisiana and Florida, and for all sugar beets. 2/ Difference between the farm value and an average of quoted wholesale prices adjusted for discounts and allowances. 3/ Difference between the retail price and the wholesale price, adjusted for discounts and allowances. 4/ Average of Bureau of Labor Statistics' monthly retail prices for sugar sold in 33- to 80-ounce packages.

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